CN

keeping track

september 1961 volume 4 number 7

keeping track

September 1961
Volume 4 Number 7

Editor: Michael Shaw
Assistant Editor: John Linder
Feature Writer: Archie Duffie
Women's Editor: Patricia Nolan
Business Manager: Dave Nelson

Contents:

As others see us	2
Jasper plans Highland Fling	3
Microwave over gold rush trail	4
New skills through retraining	6
Over the hump	8
MPs examine Company plans and prospects	12
CN piggyback nationwide network	15
System news	18
Appointments and promotions	20
The end of the run	23
Women's pages	25
Calling it a day	28
New pensioners	30

Our cover: From the air the tracks of Montreal Yard spread out from "A" tower in slender symmetry. This month *Keeping Track* introduces CN's newest marshalling yard, and some of the men who keep it operating round the clock. For Archie Duffie's story, see page 8.

Keeping Track is published by the Canadian National Railways, and mailed free to all employees and pensioners. Address changes should be reported to immediate supervisors or the Supt. of Pensions and Welfare Plans. Subscription rate for others is $1.50 per year. Second class mailing privileges have been authorized by the Post Office Department, Ottawa. Any article may be reprinted. A credit line will be appreciated. Advertising rates are available from the Business Manager. Postal address:
P.O. Box 8100, Montreal 3, Que.

As others see us

Creature of the night

A spokesman for our hard-pressed railways has predicted that the train of tomorrow will be shaped like a rocket, hurling its passengers across the country while pretty hostesses ply them with yum-yums.

As an air-age coward who every night includes the CNR and CPR in his bedside prayers, I suggest to this railway spokesman that he is on the wrong track (Schedule 57B-READ UP).

Every method of public transportation has its particular connotation. For the airline passenger it is the sense of having volunteered to tweak the nose of the gods. The ocean liner, on the other hand, we associate with shipboard romance, sunny days on deck, frank extroversion of mind and body.

Neither of these atmospheres appertains to the train. The train is essentially a creature of the night. Vistadomes to the contrary, the overriding sensation is that of enclosure in a long, segmented tube serpentining through the darkness. In short, the fascination of the train is that of mystery, of human contact by no means as inevitable as that in the plane cabin, yet much more likely than that aboard ship.

In the train's narrow corridor a beautiful stranger coming from the opposite direction — you are both alone — is about as dramatic a confrontation as fate can arrange. If the train is rounding a bend you can be thrown together literally as well as figuratively, and this is what makes the rails through the Rockies the only way to travel.

People on a train take on the special glamor of the withdrawn, of the destination unknown (to you), of any one of a dozen reasons for leaving home, or returning there.

The motion picture has exploited this peculiar ambiance of the train in countless variations on the theme of "Last Train to Istanbul". Those of us with a slightly sinister cast of face have ourselves a ball on the train, because the beautiful stranger looks at us as though we are waiting for the next trestle bridge so that we can jettison the body. She doesn't really mind since it's nobody she knows.

The idea of instituting pretty hostesses on trains is distinctly out of character. Unless, that is, they are going to sit inscrutable in the parlor car smoking cigarettes in long jade holders. The airline stewardess, bright and wholesome, is reassuring. People on trains don't need to be reasssured. They need to be tempted to sift into Compartment C when their ticket says Upper 13.

They want the train conductor to look as much as possible like Alfred Hitchcock. They want the locomotive to scream, the way it does on the Continent. (The diesel has cost our railroads dearly).

Above all they want the rail fare for children to be double that for adults. Push the little ones aloft into planes, railroaders, and I'll wager you'll be swamped with eager grown-ups who prefer to travel without being hit in the ear with a wet lollipop.

Forget the family-plan fares. Study the psychotic emanations of rail travel. Embellish them, so that those wheels may keep on clucking evilly: "Wickedly rat, wickedly rat . . . "

Eric Nicol in The Vancouver-Province

Why the deficit?

When we, the people, come to examine and discuss the affairs of the Canadian National Railways and ask why it has a deficit of some $67,500,000, we are perhaps naturally inclined to draw comparisons with the other big rail-

way, the Canadian Pacific.

But the basis for comparison is not level.

In his recent Ottawa comments on CN financial conditions, the system's president, Donald Gordon, pointed this out. To begin with, he showed, the CN, "an amalgam of existing railroads," began with "a polyglot inheritance of government lines built or acquired without hope of profit" while the Canadian Pacific Railway "grew according to plan as a cohesive and integrated unit."

More to the present point, as Mr. Gordon remarked, is that "as a publicly-owned enterprise, the Canadian National is subject to pressures from the public to a much greater extent than the Canadian Pacific."

Thus "when the requirements of changing technology or the need to meet new and developing types of competition make action necessary to keep our operations modern and efficient, a stream of comment is directed towards the CNR . . . This adds to the problems of management and I am convinced that both our cost of operations and capacity for accomplishment are influenced by such considerations."

At that, as Mr. Gordon also proved, through economies and capital improvement programs being carried forward, the position of the CN is much better than it would otherwise have been. But for the policies he directed, Mr. Gordon demonstrated, the 1960 deficit would have been close to $167,000,000 rather than the actual $67,500,000.

In all common sense and fairness let that be kept in mind.

The Brantford Expositor

Complex problem

. . . Like most taxpayers, we only know that our railway systems are a little larger than our population and economy require. We know that they are costing us too many millions of dollars to keep them operating.

What brings about this condition is not always clear, and explanations are more often fuzzy than explicit.

What we all do know is that too many miles of unprofitable track are being operated for no other reason than because some people, who never use them, believe they will lose face if common sense business practice is adopted and the lines abandoned.

Canadian railways are attempting to operate under pioneer freight rates to cater to the votes of the grain growers of the West, and modern union pay scales to allow the workers to maintain a proper living standard.

Juggling these two systems is costing the taxpayers millions of dollars every year. The grain growers get the rate they received when wheat was far below todays' price. Railwaymen get an adequate wage.

But low freight rates and high wages are a combination not even a managerial genius can weld together and make a profit. The Canadian National has adopted about every economy possible without making much of an impression on the mounting losses.

Donald Gordon places most of the blame upon the weird early financing of the railway and the political necessity of bailing out a widespread and unwarranted railway building program.

Without these barnacles of interest, unwarranted purchase of needless line and uneconomic operations, the CN would be operating at a profit, according to Mr. Gordon. Last year's deficit of $67,496,777 was attributed largely to depreciation and debt interests charged which amounted to $149,734,684 . . .

The Sarnia Observer.

Railways must go on

. . . The railways which made a nation possible are today causing great debate in Canada. We used the railways as an instrument of national policy. We juggled their freight rates to get our interior produce to the market places of the world. At best, Canada's railways have always had a slim profit. At worst their deficits have been covered, one way or another, by the public purse. But one thing is certain. Without a well organized railway service Canada would not have become a healthy nation.

Even today other forms of transportation are taking mighty bites out of railway revenues. Canada cannot afford to let its two great railway systems perish. And so as the great railway debate continues to occupy national attention one thing remains quite clear: The railways must go on, whatever the cost to the Canadian taxpayer. The problem is to keep the railways going, to keep the railways serving the national interest and keep the cost to the taxpayer within reasonable limits.

The News-Optimist, North Battleford, Sask.

Jasper plans Highland Fling

If you scratch a Jasperite, the chances are you'll find a CN employee, so it's hardly astonishing that CN people are prime movers in Jasper affairs.

For example, a "first" for Jasper this year will be the competitions of the Alberta Highland Dancing Association, to be held October 7, Thanksgiving weekend, and expected to attract Highland enthusiasts from all parts of Canada and the United States.

Here are the CN people on the executive of the Jasper branch of the Association: honorary president, G. R. Graham, vice president, Mountain Region; president, Stuart M. Bruce, trainman; second vice president, Mrs. T. A. Ross, wife of retired engineer Tom Ross; secretary treasurer, Miss M. Middleton, trainmaster's secretary; competition secretary, Mrs. Betty Sherriff, wife of trainman Bob Sherriff; public relations, Frank O'Rourke, locomotive foreman; technical advisor, Mrs. O'Rourke; publicity, Mrs. Betty Everett, wife of carman J. Everett.

Vice president of the group is Alf Sherriff, of Sherriff's Gift Shop. Mrs. Sherriff is a member of the committee.

The open competition will include dancing events for all age groups, with the feature event the competition for the "Sword of Jasper" trophy, donated by A. McKinnon Andrew of the Athabasca Hotel. A Tartan Ball will be held in the evening.

So, on October 7, the towering mountains around Jasper will echo the shrilling of the pipes in their blood-tingling accompaniment to the Highland Flings, Sword Dances, Seann Triubhas, Jigs, and Hornpipes dear to the heart of every Scot.

Full information may be secured from the Alberta Highland Dancing Association, Box 816, Jasper, Alta. ■

Microwave over gold rush trail

by Don Law
photos by Ken Hand

Canada's conquest of the north took an ultra-modern stride when, in a brief ceremony near the Yukon Territory capital of Whitehorse, Prime Minister John Diefenbaker inaugurated the $25 million microwave network between Grande Prairie, Alberta, and the Yukon-Alaska border.

The installation is 1,200 miles long and is the largest single microwave project in Canada. It is entirely operated by Canadian National Telecommunications.

History abounds along the rugged route of the network. With its southern terminus in the pioneer Peace River grain district, some 450 miles north of Edmonton, the CNT line winds over vast stretches of hinterland, mountains and expansive river valleys to Whitehorse. From there it reaches northwesterly through the country of the Klondike Gold Rush of the 1890's, ending at Mount Dave — about two miles from the Yukon-Alaska border and close to Snag, where winter temperatures generally drop lower than anywhere else in Canada.

The purpose of the network is to provide multi-channel telephone-telegraph communications between the continental United States and the new State of Alaska. Growing commercial requirements and American defence planning in the north have stressed the need for more facilities to supplement the World War II landline, Northwest Communications System — now operated by CN Telecommunications -- and a submarine cable service. Neither of these two was capable of accommodating added voice channels.

"This great project is the latest evidence of CNT's role in providing communications in the area," said John R. White, CNT general manager, at the opening ceremonies. "Already we are providing communication services at Whitehorse as well as several other points.

"Naturally I am most pleased that the project was brought to successful operation in time. It is a tribute to the resourcefulness, determination, craftsmanship and the spirit of co-operation exhibited by the many men employed in this undertaking.

"I would like to express my personal gratitude to our CNT personnel who have played so important a part in the planning and construction of this microwave system, as well as those now responsible for day-to-day operation."

This Canadian National project, the culmination of three years' intensive work by Mr. White and numerous other communications department people, consists basically of 42 microwave stations. They are spaced at approximately 30-mile intervals, at distances of up to 15 miles from Alaska Highway.

Those distances cannot be regarded in terms of railway line mileages, either. Some of them are measured up mountainsides.

To gain access to the sites, approximately 80 miles of road had to be constructed and over 1,000 acres of land cleared and grubbed. The builders had to hack their way through rock, muskeg and permafrost.

At 12 locations, it was impossible to build roads right to the sites. In these cases CNT established the radio equipment at the top of the hill, and the diesel-powered generator in a second building at the foot, close to the highway and accessible to oil trucks. These are called dual sites.

CNT is using some 75 men to maintain the system, providing homes in well-populated areas since most of the men have families. Main maintenance centres are in towns like Grande Prairie, Dawson Creek, Fort Nelson and Whitehorse.

At Paint Mountain, Mile 1,012 on the Alaska Highway, and Horse Camp Hill, Mile 1,175, crews faced a particularly tough situation. Both station sites are located on the top of mountains, inaccessable by motor vehicles.

Following study of various aerial ropeway systems, a contract was awarded to a Norwegian firm for the construction of two aerial tramways to the mountain-top sites.

The Paint Mountain tramway is 5,200 feet long, providing a rise of 2,300 feet. At Horse Camp Hill, the tramway system is 4,900 feet long and rises 2,100 feet.

At both locations, the trams are capable of carrying two tons of freight or a passenger load of 1,500 pounds. The systems have a speed of around 1,000 feet per minute for passenger carrying, and can transport heavy freight at 500 feet per minute. Driving controls are such that the operator can vary the speed according to wind and load conditions.

Towers along the network range in height from 50 feet to 350 feet, with an average of about 200 feet.

The 52 microwave and power buildings on the system, with the exception of those used for the tramway equipment, are divided in two, sound insulation separating the halves. One room is used for the power generators, the other for microwave equipment.

Most of the material for the microwave system was shipped from suppliers by rail. For northern sites, material travelled via Canadian National Railways to Vancouver, then by boat to Skagway, Alaska, where it was transferred to the Whitepass and Yukon Route for transportation to Whitehorse. From there it was shipped north and south by truck. Equipment for the southern and central sections of the system was shipped by CN to Edmonton, then over the Northern Alberta Railway to Dawson Creek, B.C., and distributed out of Dawson Creek by truck.

The system, built for CNT by RCA Victor Company, Ltd., of Canada, is capable of carrying 600 telephone-telegraph circuits. With the installation of additional equipment the system could provide facilities for television transmission. ■

Above: *Prime Minister chats with John R. White after the CNT general manager presented him with phone Mr. Diefenbaker used to call U.S. President Kennedy.*

Left: *Prime Minister Diefenbaker addresses gathering at microwave tower site near Whitehorse, Y.T. Official party included Canadian and U.S. Government and military officials.*

Below: *Mrs. Diefenbaker chats with Joyce Bellieveau, CNT operator at Whitehorse.*

New skills through retraining

Right: *Instructors from across the system attending the School of Instructional Techniques in the new headquarters training center.*

Far right: *Track maintainers learn news skills in operation of machines like this modern ballast tamper.*

Below right: *George Hoganson, co-ordinating engineer, highway services, left, congratulating students on the successful completion of a special work study course.*

by Anson J. Raymond

At one end of a 300-foot prefabricated steel building, especially erected for the purpose in CN's Toronto Danforth Yard, a rail welding supervisor is teaching his specialized trade to apprentices from the Great Lakes and St. Lawrence Regions.

Outside, in a bunkcar converted to a classroom only a few yards away, an instructor in work equipment demonstrates with film and chalkboard the operation and maintenance of a gasoline engine.

Five miles westward, in the heart of the city, first-line supervisors are studying a course in human relations under the leadership of a staff training specialist in the CN Telecommunications conference room.

In an office next door electrical engineers are preparing a course of instruction to train technicians in the new science of microwave transmission.

These are typical scenes of Canadian National training programs that are being repeated from Newfoundland to British Columbia.

On almost any given day of the year one can find groups of employees across the System up-dating their skills and "know-how" — reservation clerks in Halifax, pole-line construction crews at Moncton, accounting clerks in Montreal, roadmasters at Toronto, bridge and building foremen at Winnipeg, and sleeping, dining, and parlor car staffs at perhaps six different points — all participating in organized instruction in either permanent or make-shift classrooms.

All are learning new methods, new skills or being taught to operate new equipment to meet today's needs on "the railroad with the new look!"

Some are learning about new concepts in marketing and administration. If the day happens to fall between June and mid-July, an observer will find fifty of CN's middle-line managers, hand-picked from across the System, attending the annual "Staff College" at Bishop's University, Lennoxville, Que., where the faculty is comprised of professors from Canadian and U.S. universities and the curriculum covers subjects ranging from English to transportation economics, market research and labour relations.

Any week of the year one is likely to find a large scale retraining program of some kind in progress somewhere along the System — programs designed to teach CN employees new skills in an era of accelerated technological change. Men from shop crafts being retrained in servicing millions of dollars worth of new equipment used in maintenance of way operations; communication technicians learning to install and maintain Private Wire Service and Telex systems; technical specialists attending the School of Instructional Techniques; or accounting and clerical staffs being retrained in the new skills of computer technology — handling complex machines that tabulate facts and figures within split seconds.

In meeting the challenge of change, CN management regards training and retraining as an indispensable tool in up-grading skills to handle the System's increasingly automated and mechanized operations. The demand for new skills is created with the introduction of each new phase of modernization and reorganization which every day are making radical changes to previous methods of operation.

That CN is aggressively up-grading its work force in the "classroom" is evident from the fact that more than 45,000 employees took part in either training or retraining programs in 1960 alone. This figure, which at first sight appears to represent nearly half of the work force, allows for duplication, since it includes many employees who studied more than one course.

And the value that CN management place on up-graded skills is partly evident from 1960's very large budget for Training Services which totalled more than $1,300,000.

"We no longer use human beings as beasts of burden, and the drudgery that used to be a regular part of the railway business thirty, forty or fifty years ago has gone", President Donald Gordon reported to the 1961 Parliamentary Sessional Committee on Railways, Air Lines and Shipping.

"We supply them with tools which take all the heartbreaking and backbreaking toil out of the business. In the process of doing that, these men who were heretofore unskilled laborers have been moved up into higher brackets. They are taught how to use machines. As a result they are paid better because of their improved skills which we have taught them in the use of these machines."

Mr. Gordon went on to state that to date more than 400 men have taken the staff training course at Bishop' University, while in 1960 alone a total of 7,559 employees were either trained or retrained in technical skills.

"This type of training and retraining program was conducted mainly in the maintenance of way, signal maintenance, communications department, motive power and car shops during 1960. Prefabricated buildings were erected in Moncton, Toronto and Winnipeg in 1960 to provide facilities in which to teach new methods in track maintenance, operation of new work equipment machines, rail welding and

so on.

"Passenger coaches converted to mobile classrooms, equipped with signalling apparatus, and which travel across the system, were used to teach the technical skills involved in the maintenance of centralized traffic control and other aspects of the complex signal system".

The president said the job instruction training program, stressing the responsibility of the supervisor for on-job training of his men, was attended by 114 supervisors. A course in leadership training was provided for another 875 in 1960 — men from departments as diverse as passenger sales, communications, motive power and car equipment, accounting, and maintenance of way.

Twenty chief clerks and others took instruction in office management in preparation for the move to the new headquarters building.

"Then we have had courses in training steam locomotive men and shop mechanics in the handling and maintenance of diesel locomotives," Mr. Gordon told the committee. "These courses, which commenced in 1951 and 1952 respectively, are conducted in various shops across the country and since 1952 there have been no fewer than 11,349 enrolments."

He also described the results of training in key punching, sorting, tabulating and data processing. Better customer relations through courtesy and service was the common objective of courses given to 1,074 people from passenger sales and the sleeping, dining and parlor car departments in 1960.

Safety received heavy emphasis. Mr. Gordon said 2,819 men took medical aid courses, and 11,625 took rule instruction.

The president summed up: "We have accepted in full measure any managerial responsibility that could be pointed to in the matter of adjusting our employees to the changing phases of the railway industry.... We must adjust ourselves. An organization of any kind has to adjust itself to its environment or it just dies."

K.K. ("Ken") King, Supervisor of Training Services for the System, defines "training" as not only embracing new technical job skills used in shops, maintenance of way, communications or accounting, but also training designed to improve customer relations and sales promotion, first-line supervisory leadership skills, management's administrative skills, work simplification and rules instruction, as well as accident prevention and first aid practices.

"Training programs are paying off not only in better work performance and increased efficiency for Company operations, improving employee morale and job qualification potential, but retraining in particular has saved many a job which might have disappeared with automation or other new work processes that come with mechanization," Mr. King says.

Research in all manner of industries has shown that the systematically trained worker, supervised by a foreman or line manager trained in the art of leadership, is much less likely to be a malcontent, and more likely to be a productive, loyal employee than the employee who is neglected, left to "learn the hard way" and is seldom well-informed on anything.

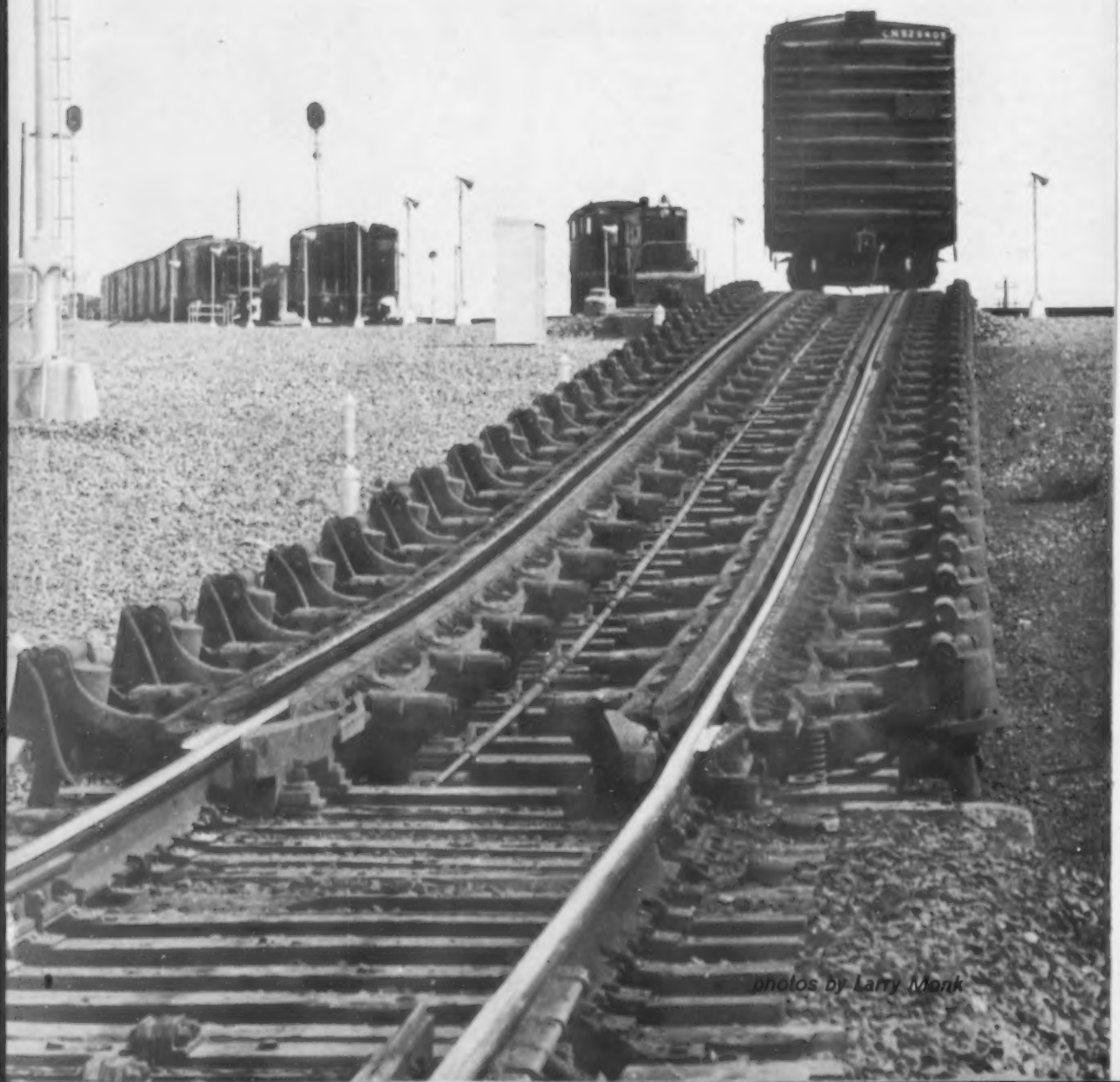
"The enlightened use of people is the foundation of all good employee relations and the goal of all training," says W. T. Wilson, CN's vice-president of Personnel & Labour Relations.

A new spacious Training Centre has recently been opened in CN's new headquarters building in Montreal. Located on the second floor, the centre has an auditorium or theatre fully equipped for lectures, demonstrations or 16 mm. film screenings, with a seating capacity for 272 people. When not required for large meetings, the auditorium can be divided into two or three smaller classrooms by means of sound-proof folding partitions. When divided into three sections, each can accommodate a total of 50 people. In addition, the centre has two smaller classrooms for groups of 25.

The centre is equipped with every sort of modern training aid, including unique five-purpose chalkboards, that can be used as "blackboards", as projection screens, or for the mounting of magnetic objects for demonstration, suspended exhibits or flip pads. Other equipment includes motion picture projectors, tape recorders, and a library of training films, covering such subjects as supervisory training and work simplification. The furniture is designed for comfortable seating through long sessions. ■

over the hump

The complexities of digital computers may always bewilder him, but Archie Duffie can talk railroading with 37 years' CN service to back up his arguments. This summer Archie met some new railroaders. Location: Montreal Yard, to be officially opened later this month. The enthusiasm and attitude of these men in their new environment impressed him. Here, in fluid Duffie prose, is what he saw and heard when he went . . .



photos by Larry Monk

"The biggest in the world."

It's been said about a million things. King Khufu probably used it in his publicity for the Great Pyramid. P. T. Barnum said it about Jumbo, which animal, according to Will Cuppy, was eleven feet high when Barnum measured it and nine feet high when anyone else measured it.

Well, CN's new hump yard at Cote de Liesse, Montreal, is the biggest in the world, and the statistics of this vast, sprawling web of tracks will bear out the boast.

It covers 800 acres, it is two miles long and 3,300 feet wide. It has capacity for 10,600 freight cars; has 160 miles of track, 35 miles of ditches and drainage pipe; uncountable miles of electric wires, ten miles of road, 644 switches, and festoons of mercury-vapour lights for round-the-clock operations. It can handle 35 miles of cars in 24 hours.

The big yard is off and running, having come through its shakedown period in a fashion that had railroaders from all over the continent marvelling that so much could have been accomplished in such a short time.

When I set out to do this story, I figured a good way would be to identify myself with a train heading into the yard, and watch it broken up, sorted out and made into new trains.

So I talked to Murray Hallonquist, assistant to the operations manager of the Montreal Area, and right off the bat felt I was going to be lucky on this one.

I got the feeling right away, talking to one of the head men of this huge enterprise, that he was vastly proud of it all. By the time I finished my two days of snooping round and shooting questions at everyone from the yardmen back to Murray Hallonquist, I found this feeling of pride strong right up the line.

The men I talked with all compared their new working environment with the tired-out, grubby, 19th century setup at Turcot yard, where most of them had worked before Cote de Liesse opened.

They weren't thinking only of the Railroad YMCA building, with its recreation rooms, cafeteria and comfortable bedrooms, nor of the lavish use of mechanical and electronic devices that made their work easier and safer.

It was more than that. Something not easy to define. A feeling of pride that they were part of a tremendous deal like this, seems the best way to put it.

I got this impression from the attitude of people such as George Deslauriers, superintendent, freight; "Pete" Bissonnette, general yardmaster; George Percy, engineer, and his helper Paul Martineau; Andre Trudeau, yardmaster; Roger Lamarche, hump foreman; Gerard Savage, yardman; Ivan Turcotte, car checker (he looks at television all day); Sam Collett, senior machine operator in charge of the punched-card machines; Phil Fournier, yardmaster; Doug Wentzel and Cal Bongard, retarder operators; and John Matieuski, yard foreman — men not given to talking just to hear the sound of their voices.

The attitude of each of them can best be summed up by Gerard Savage's "It's a lot better for everybody."

I started by watching Pete Bissonnette at work. We were in the lofty tower of "M" office, nerve-center of the yard, and I sat entranced at his ability to answer questions that came over his loudspeaker like bullets from a machine-gun.

His answers came as fast as the questions. He made a dozen decisions a minute, and still found time to describe his job. Essentially, the general yardmaster sits on top of the whole operation, connected by phone and radio with everyone else in the yard, and passing the word on every important move where his authority and competence are needed.

Pete started me off on the next step by introducing me to the television room below. There, lined up on a table in a room with big, plate glass windows on three sides, are four TV receivers and two dictating machines. The receivers are connected to TV cameras at the entrance to the receiving yard.

It's a closed circuit arrangement, and though there are selector buttons to switch from one set to another, all you get are trains. No Grey Cup, no World Series, no Ed Sullivan. Just trains.

Ivan Turcotte was working the shift, and just as I got there he received a buzzer signal that a main-line freight was heading into the yard.

He sat down, started his dictating machine, and as the train rolled past the cameras he called off the engine and car numbers and initials.

When the van at the end of the train had passed, Ivan put the disc from the transcriber into an envelope and passed it along to the transcriber clerks in the next room. They already had an "advance consist" which is a list of the cars on the train, this list having been received from the yard the train left the night before.

They checked the car numbers on this list with those on the transcriber record. Then they assigned to each car on the list the number of the track on which it would wind up in the classification yard.

Then the list went to Sam Collett in the machine room next door. There, Sam and his staff, surrounded by humming electronic data processing machines, punched cards from which the hump list, key document of the operation, is prepared.

At the time the list was being printed from the punched cards, it was being simultaneously reproduced on teletypes in the hump foreman's office and the hump yardmaster's tower, so that everyone involved got a copy and knew just where each car of the incoming train would wind up.

Now I was ready for my ride over the hump.

Murray Hallonquist introduced me to engineer George Percy and Paul Martineau, his helper, and I wallowed in railroad shop talk with them while we hooked on the end of a string of 40 cars, and waited our turn. There were two trains ahead of us.

George was handling engine No. 3, made up of three 8600 diesel units, specially geared for hump operation.

Facing him in the cab was a three-light signal that duplicated the track-side signals governing his movements. In addition, he had a standard telephone set through which he could be reached by radio from anywhere in the yard.

Half an hour after I climbed into the cab, a gong sounded loudly and the cab signal winked from red to green.

George yanked the throttle handle, and we began our push to the hump at about ten miles an hour.

As the cars we were pushing neared the hump, the gong bonged again. The red light showed, and George braked the train to a stop. All braking on the hump is done by the engine only, the air having been "bled" from the train brake system by car inspectors in the receiving yard.

Within a few minutes we got the

Far Left: *Hump foreman Lionel Lacoste checks switch list and punches buttons to set routes for cars which pin-puller Malcolm Ward is uncoupling in background.*

Left: *Operation of the two main humps is supervised by yardmaster Phil Fournier from top floor of Tower "A".*

Right: *Retarder operators Cal Bongard and Doug Wentzel watch every move intently, ready to take over manual operation of retarders if necessary.*

OK to start humping, and George switched on the special control that limited the engine's speed to between half a mile an hour and 1½ miles, the "humping range." Using its associated control knob instead of the usual throttle control lever, he could accurately control speed in the 1 - 2 mph range.

A quarter-mile away round the curved lead-track, from where I sat in the engine, I could see our cars slowly approach the crest of the hump. They picked up speed as they headed down the incline, sometimes singly, sometimes in batches of two or three cars.

Just before the humping operation begins, the car axles are oiled by an automatic machine.

While the inspectors are going over the cars in the receiving yard, they check the journals, and if they see that oil is needed, they leave the journal-box lid open.

When the car approaches the oilers, one on each side of the track, an electric eye catches the reflection from the shiny end of the axle. It trips a switch releasing a beautifully-timed squirt of oil that hits the axle dead center. If the journal-box lid is closed, or the car has roller bearings, nothing happens.

It's a Rube Goldberg contraption if ever there was one, but it works to perfection.

When the last car was pushed over the crest George and his mate had finished their shift, so they waited for instructions over the phone to park the engine on a track alongside the hump. George levered on the hand brakes and left Number 3 for the next crew to pick up, and I headed for the hump foreman's office to continue my education.

Yardmaster Andre Trudeau and hump foreman Roger Lamarche were on duty, and they showed me how it's done. Their job is to direct the cars, as they are run down the hump, to their destination on one of the 84 tracks of the gigantic main classification yard, or the 40 tracks of the local yard, all fanned out at the bottom of the hump.

Roger, seated at the machine that selects the track for each car, works from the hump list that comes to him over the teletype from Tower "M", back at the head of the receiving yard.

There are two main humps, each with its own control system. The "east" office controls access to tracks No. 43 to 84 in the classification yard, while the "west" office can handle the whole 84 tracks.

Both humps were working at the same time. In the "west" office, Roger got the OK from the yardmaster in Tower "A", and from the retarder operators in the same tower.

Then he set up his first quadruple sequence of cars. In front of him on the console was a double row of buttons, each row numbered from one to zero. By pushing them, singly or in combination, he activated the relays that automatically lined up each switch in the route for each car, or "cut" of more than one car.

As he pushed the buttons, the numbers of the four tracks selected appeared on a small screen in front of him.

Then, with everything set, he called into his microphone, "One car to start, then two cuts of two, then one."

His voice was heard on the loudspeaker outside the office by the "pin puller," the man who uncouples the cars in the order chosen.

Again Roger spoke into the mike, this time to the retarder operators. "Here comes your first car, time 8.21." And the answer came back, "Thank you."

This "thank you" answer appears to be the standard acknowledgment for every phone and radio message throughout the yard, and it looks as if our people there take the "Courtesy" part of CN's slogan as seriously as they do the "Service" part.

They say "Thank you." Not just "OK," or, thank heaven, "Roger and over."

Another thing that strikes the observer is the easy bilingualism of the phone and radio conversations. "Deux coupes de deux" is as clear to everyone as "Two cuts of two".

To return to the hump, the engineer on the pushing locomotive had the green light now, and as the cars moved slowly over the crest, the pin puller yanked the coupler lever and disconnected the first car. It crawled ahead, then gained momentum till it tobogganned down grade toward the master retarder.

The retarder is the real "gimmick" of automatic yard operation.

Its purpose is to slow down the descending car to a speed that will carry it to the exact spot in a preselected yard track.

In accomplishing this, a fantastic combination of electronics, mechanics and human ingenuity is brought into play.

As the car descends the hump, a system of relays and appliances measure its weight, speed, and relative ease of movement to establish its "rollability."

Automatic computers analyze this information in a flash, and convey an "order" to the retarder, telling it, in effect, how much pressure will be needed to slow the car to the proper

Above: *The 84 tracks of the main classification yard as seen from yardmaster's office in Tower "A".*

speed.

The computer also "counts" the cars, if any, in each yard track and includes the necessary "slow-down" factor in its calculation of the amount of retardation necessary to send the car either to the end of the track, or to the point where it will couple gently to the last of the cars already there.

The retarders consist of a series of huge air cylinders connected by a system of levers to steel bars on both sides of each rail which put a mighty pinch on the car wheels, braking the car as required.

The power of the retarder can be gauged from the fact that it is capable of stopping cold in its tracks a diesel locomotive under power.

Watching the retarder work, I unthinkingly got a little too close, and when one car got a really big squeeze put on it, its wheels let out a banshee screech that almost took the skin off my ears. After that, I got back a little, and stuck my fingers in my ears.

There are two master retarders, and eight group retarders at Cote de Liesse main classification yard, with one master and five group retarders at the local yard.

At the bottom of the hump, on the top floor of Tower "A", yardmaster Phil Fournier kept watch over the entire operation, connected by phone with everyone.

From his glassed-in nest he could see the whole yard, and he had a pair of high-power binoculars to help. All the people working in the towers have these, incidentally.

In the room immediately below, retarder operators Doug Wentzel and Cal Bongard watch the movement of cars down the hump. Each has a console covered with switches and buttons with which he can take over operation of both the two master retarders and the eight group retarders. Their job is a tough one, requiring intense concentration and the ability to make quick decisions. Machines, as well as men, sometimes falter, and mistakes are made. When a car goes down the wrong track, the retarder operators must spot it , signal a stop to the humping operation and, if necessary, send a "trimmer" engine down the hump to pull the wayward car either out of the way, or back up the hump for another shot at it.

So the yardmaster, the retarder operators and the hump foreman sit and play trains with millions of dollars worth of ultra-modern equipment, remote-controlling as many as 100 cars in 28 minutes as they spill over the hill and head to their preordained destination tracks, coupling gently to the cars already there, either in the main classification yard, or the local yard, which has its own control tower and car retarder setup. The local yard is used to distribute cars to industrial sidings in the Montreal area, and for classifying wayfreight cars.

The automatic switches that guide the cars work so quickly that it is hard to see the movement. A fifth of a second, a soft hiss of air, a slight slapping sound, and the switch is turned. These switches, and the ones in the receiving yard, will be heated by propane gas for winter operation.

Cars sorted out in the main or local yards are assembled into trains in the departure yard by engine and ground crews in constant communication with each other by radio. Hand signals are rarely used or needed.

Air for the brakes from a central compressor plant is fed into the reservoirs under each car so that it will not be necessary for the road engine to do this work, and the inspectors give the train a thorough going over before the engine arrives.

Then the conductor or brakeman informs the yardmaster through talkback speakers that he is ready to go, the yardmaster checks with the switchtender in Tower "M" and with the CTC board, the "green eye" flashes on, and the train heads out of the yard onto the main line.

I saw a long freight come into the yard, saw it chopped up and sorted out and remade into another long freight.

This is the function of the yard; but there is much more to it than the receiving yard, the classification yards, and the departure yards with all their mechanical marvels.

There is the 222-car storage yard; a huge new car repair shop and diesel locomotive shop, each a miracle of efficiency, each worthy of a magazine article of its own.

There is a "hold" yard where cars are held for Customs examiners; a maintenance of way yard for storage of track and snow-fighting equipment; a car cleaning yard; and there are icing sidings and live-stock pens.

All parts of the Biggest in the World.

All functioning smoothly to demonstrate railroading at its most modern, all contributing to the frame of mind of Yardman Gerard Savage and his mates when they agree that "It's a lot better for everybody." ■

MPs examine Company plans and prospects

OUR JULY-AUGUST ISSUE CARRIED EXCERPTS FROM PRESIDENT DONALD GORDON'S STATEMENTS TO THE SESSIONAL COMMITTEE ON RAILWAYS, AIR LINES AND SHIPPING. HERE NOW, FROM THE OFFICIAL MINUTES OF THE PROCEEDINGS, ARE SOME OF THE QUESTIONS AND ANSWERS THAT FOLLOWED.

Douglas Fisher (CCF — Port Arthur): *You have been designing general improvements in your yards and in your traffic service handling . . . Could you give us any indication that the amount of money being poured into these changes is going to be justified?*

Mr. Gordon: . . . The short answer, I think, is to say that if we had had the traffic volume that we confidently expected, we would be able to show a surplus. In other words our plant is built and ready to handle a much larger volume than we got last year or than we are expecting this year for that matter. Our volume depends to a large extent on general economic conditions. If those conditions improve sufficiently we will get the traffic on which we based our capital expenditure program.

Mr. Fisher: *This is surely the crux of your capital spending program. If this is just a one-year matter — fine; but how can we look at the picture in the last three or four years, and not assume that this may be developing into a permanent characteristic?*

Mr. Gordon: I do not think anyone can be precise about that. I, myself, speaking purely personally, retain a stubborn confidence in the future of Canada. I believe Canada will develop and as it develops I think it follows that the economic factors of that development will benefit transportation as well as other things. Of course, when one is planning for capital expenditure on the railroad particularly, where you have to deal with long term expenditure, you cannot spend capital moneys for next year's traffic only. You have to build the railway plant on the basis of 10 or 15 years ahead, and perhaps in some cases for longer than that. We have lots of equipment with a depreciation life up to 33 years. Therefore, we have to take calculated risks in regard to the size of what I might call our plant, and by plant I mean our whole operation — equipment, roads and services of every kind.

Mr. Fisher: *Is it possible that you have been pursuing an ambitious capital investment program?*

Mr. Gordon: I would rather put it this way, that we had much more to do than the CPR . . . When we get down to cases, in the matter of diesel locomotive operation I was stunned to find all of our western railway lines were below grade in the matter of being able to take diesel operations. Therefore we had to embark on a collateral program of upgrading the line, renewing the line, in the form of drainage, heavy rails in some cases, better ties in some cases, and so on.

H. C. Grayston: We embarked on that program a few years ago . . . I think it is

quite safe to say that if rehabilitation had not taken place in the west we in due course would have had to spend a great deal more money on it than we did, and would have found ourselves completely unable to compete in the way that we are starting to do with faster, long distance freight trains, and things of that kind.

Mr. Fisher: *Dealing with reorganization on an area-management basis, if this is going to be the answer to the situation, I imagine it is going to be an expensive change . . . Why delay this reorganization to this late date if it is the answer to your problem?*

Mr. Gordon: I think that is very easily explained . . . A reorganization of the size and magnitude we have accomplished was a fearsome thing to contemplate and we did not go into it on anything but a very gradual basis. It took four years of examination and study before we became convinced as to the kind of organization that would fit. Then, in the matter of implementing it, again it is a very gradual process. I do not suggest there is any magic at all this year rather than last year or the year before. It is just a matter of when we were finally able to get it done.

Mr. Fisher: *Surely it is fair to ask why this answer was not obvious earlier, and why reorganization was not introduced sooner?*

Mr. Gordon: Things change, circumstances change and make it possible to do things this year that might not have been possible seven years ago . . . It has taken time to get around to the question of reorganization . . . There were two elements in it which had a very definite bearing, the first being the dieselization program itself. I felt myself, and all my officers agreed, it would not be advisable to start on a reorganization before we got the dieselization program finished, and the dieselization program only finished last year. It has taken us close to ten years to complete the program and the dieselization of the railway was a great change in the technology of railroading. It made a great many things possible that were not possible with steam locomotives . . . We also got into other technological developments in communications. Some ten years ago we did not have anything like the centralized traffic control which we have now. We did not have anything like the developments in the communications field where, as I say, within five seconds we can be in touch with Vancouver, Winnipeg and other points . . . Through a rapid communication we could put more responsibility upon local areas and that is one of the benefits we got through capital expenditure.

Mr. Fisher: . . . *Your management over the last four years has managed to build up huge deficits.*

Mr. Gordon: What I have been trying to do, and what management has been trying to do — is to adjust ourselves to living with all the changes that have been brought about. We had to adjust ourselves to the fact of the diesel locomotive, and along with that went endless complications in numerous fields . . . What we have tried to do is make that adjustment with the human factor and the community factor on as a considerate a basis as possible. I thinl we have done that, and I am prepared to argue we have done it as well as could be done by anyone else. I am talking not about myself but about the management team in the CNR, and I am prepared to state here definitely that there is no better group of railroaders in this continent than you will find in the Canadian National System. I am talking about the supervisory staff and employees right down to the fellow who is working on maintenance . . .

J. H. Horner (PC — Acadia): *Does the growing use of machines cut down to a great extent the number of sectionmen?*

Mr. Grayston: Yes . . . As you acquire the necessary machinery to do track maintenance obviously the number of men required to do a given amount of work is reduced, and with this comes the concept, for instance, of what is called cyclical maintenance, where instead of the section forces taking care of the day-to-day requirements of track maintenance, this is done periodically by mechanized means. These things do result in the lengthening of the section, that is to say the number of men required for a given amount of track does become smaller.

Mr. Horner: *Is there any evidence to suggest that maybe more accidents are occurring in areas where sections have been lengthened?*

Mr. Gordon: That is something on which we have had a very careful analysis because naturally we were

concerned about the question of accident possibilities in the areas you mentioned. Every accident that we have, of course, is very carefully gone into, and we are certainly in a position to demonstrate that the maintenance factor has not been the cause of any accident of the kind you mentioned. It must be remembered that we maintain every section of our railways in accordance with standards. We have class "A", "B", "C" and "D" of track, depending on the kind of line it is. The local foreman in charge of a particular section is supervised by his roadmaster and finally by the area manager who is responsible for seeing that the standard of maintenance in his particular section is adequate. It is his responsibility . . .

Lionel Chevrier (L — Laurier): *Have you noticed a relationship or a downgrading of accidents since diesels have come in as compared with steam locomotives?*

Mr. Gordon: Our accident record is improving. It would be a temptation to claim credit due to dieselization, but I would not want to do that because I am terribly superstitious about accidents. As soon as I start taking credit for something, I will read in the morning paper that someone proved I am wrong. Take the matter of CTC signals. Under centralized traffic control the need for train orders is thrown out of the window. Under the old system an engineer was given his train orders and they were based on time. He was required to be at a certain mileage at a certain time. If he was not there for any reason, it was up to him to see that the line was blocked and the necessary safeguards taken. The essential difference, however, with centralized traffic control is that the engineer proceeds entirely by signal indication, no matter where he is. If he has a green light, he goes, if it is a red light, he stops. That seems simple, but every now and again a man goes through a red light. The human element is there no matter what you do. Some of the most serious accidents we have had were due to that simple factor, that for some unknown reason a man, despite the fact that he was risking his own life, would go through a red light. We have tried to find out why it was so. It is a very difficult thing to understand.

I think our accident record is better for the reason that the equipment and machinery is better. We have got some breakdowns here which would have some bearing on it. This shows the cause of the train accidents. Under the heading of defective track, where the accident occurred because there was something wrong with the track, there were 38 accidents in 1959 and 27 in 1960. Under defective rolling stock there were 133 accidents in 1959 and 107 in 1960. Under the heading employee responsibility, which would be an accident of the kind I have just mentioned, there were 136 in 1959 and 92 in 1960. Then, under the heading of other causes, there were 76 accidents in 1959 and 67 accidents in 1960. The total number of accidents was 383 in 1959 and 293 in 1960. Therefore, there has been a very substantial improvement there. However, as I say, my superstition will not let me claim it is due to this or that. The human element still is a very important factor.

J. F. Browne (PC — Vancouver-Kingsway): *As of this year there will be approximately $91 million paid in subsidies to the railways by the Maritime Freight Rates Act, the Freight Rates Reduction Act of $20 million, the bridge subsidy of $7 million and supplementary estimates of $50 million. I think that we would wish to be assured that the money being paid in subsidies is not finding its way to making it possible for the railways to reduce rates below an economic level . . . ?*

Mr. Gordon: First of all, those subsidies you mentioned, every dollar of them, go to the shipper and not to the railway. The shipper is getting benefit from the reduction of the rates. Subsidies are being paid for the purpose of keeping railway freight rates lower. Secondly, I have a statement before me from the appropriate department which tells me this quite definitely in regard to the general incentive rates. The incentive box car rates have two essential features. They are fully competitive with trucks in the weight range from 20,000 to 40,000 pounds per carload and secondly they offer an incentive to load beyond 40,000 pounds, all the way to 120,000 pounds, which shares the cost savings available between the shipper and the railroad. These rates in all cases provide an attractive return above our out-of-pocket cost and are set just low enough to compete effectively with truck cost, bearing in mind the service disadvantage of the box car. We have in mind that there are real disadvantages which cover somewhat lower service, more risk of damage, and the shipper must load and unload the car himself. We recognize that in our rate, and we do put these incentive rates at a point that as nearly as possible would compete with truck costs and still give us a return. ■

CN piggyback nationwide network

by Phil Blackwell
photos by Charles Kinghorn

Above: *Ken McGrail tying down a trailer with a power wrench on an A.C.F. hitch.*

Right: *A group of staff officers plan future piggyback operations.*

Canadian National is going out aggressively after freight sales.

There's ample evidence of this in our new streamlined express and LCL operations, in faster freight train schedules, incentive rates and agreed charges, in piggyback service, and in a broad plan to integrate rail and road operations.

Speed, flexibility and attractive rates are the keynote — to provide a service tailored to our customers' needs.

When flexibility and speed are what's wanted, piggyback has part of the answer. True, the volume of freight handled by piggyback is a minor item when compared with total volume. Measured against the long history of railroading, piggybacking is still in its infancy. But one thing can be said for certain: the infant is healthy and growing.

Just what is piggyback?

Originally it was referred to as the trailer-on-flat-car movement of freight, abbreviated TOFC. But during its early days someone dubbed it "piggyback" and the term stuck.

The basic idea — putting a loaded vehicle on a railway flat car — actually goes back a long way. In fact, right back to 1855 when it was introduced on the Nova Scotia Railway, now part of CN, between Halifax and Four Mile House, N.S. In those days farmers drove their wagons to the railway station. The wagons were hauled on to flat cars, the horses placed in "horse boxes," and all transported by rail.

Those who like to believe history repeats itself can say now that piggyback is staging a comeback.

On the North American continent, five main plans are in operation for the movement of freight in trailers mounted on flat cars. Plan One covers the movement of trailers owned by trucking companies known as "for hire" carriers. Plan Two covers the movement of the railway's own trailers. Plan Three deals with trailers owned or leased by the shipper. Plan Four applies when both the trailer and the flat car are owned by the shipper. Plan Five covers a system of joint through rates and service by both the railway and the independent trucker.

CN began by transporting its own trailers — Plan Two. The first experimental service started in December, 1952. It was exclusively for less-than-carload traffic and it operated between

Montreal and Toronto with 12 converted flat cars and 24 trailers. In July, 1953, the service was extended to Hamilton.

The largest movement of piggyback traffic in Canada now takes place between Toronto and Montreal. The elapsed rail time, 7½ to 8½ hours, beats by quite a margin the approximate time of 10 hours needed to drive a tractor-trailer combination by road. Every night CN operates two piggyback trains each way between the two cities.

The hauling of trailers owned by highway carriers is called Plan One, but for us it was the second phase. We inaugurated this service in October, 1957. Some Canadian truckers greeted it enthusiastically as "a revolution in thinking."

Plan Three, the moving of shipper-owned or leased trailers, got its start with us last March when we undertook jointly with the Canadian Pacific to haul tank trucks owned by Liquid Carbonic Canadian Corporation. Our freight sales department has this plan under further study. Plans Four and Five haven't yet appeared on the Canadian scene.

From three points served during the first year of operation, piggyback has expanded coast to coast. Not all services are available at all points, but either Plan One, Plan Two or a special household goods service operates at the 76 locations on the growing CN network. Coverage now includes 27 points in Ontario, 16 in Nova Scotia, 12 in New Brunswick, nine in Quebec, five in British Columbia, three in Alberta, and two in each of Saskachewan and Manitoba.

Since 1959 CN has been hauling vans loaded with household goods and furniture. One of the longest piggyback movements on record occurred last March. We hauled a Vancouver moving company's 10-ton truck-trailer across the continent and handed it over in Halifax, thus completing a trip of almost 4000 miles without so much as cracking a teacup.

The first international piggyback operation between Canada and the United States got under way in March, 1959. Canadian National and the Delaware, Lackawanna and Western Railroad teamed up to meet the demands for this service between New York and the Toronto metropolitan area.

The Canadian Post Office department has also shown an interest in piggyback. In 1960 CN carried out an experiment transporting mail by piggyback between Toronto and Quebec City. Previous delivery time was cut by six hours.

At the end of 1960, CN's Plan One was being used by 69 commercial carriers and 41 household goods carriers across Canada.

Today CN has over 700 flat cars equipped for piggyback service, some with double hitch, capable of carrying two 24-foot trailers, some with single hitch to accommodate one 36-foot trailer or an even longer load. A number of these cars are also equipped so that they may be used in passenger trains. At the outset, flat cars were converted for piggyback service. Now, a specially designed 46-foot car with an average light weight of 36,800 pounds is used.

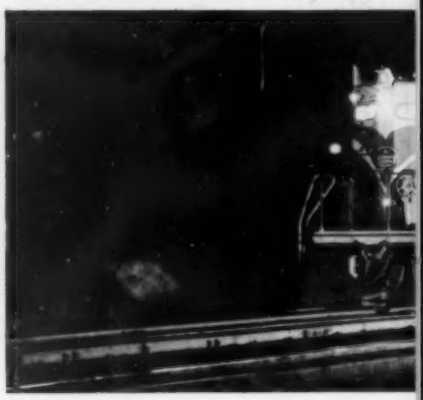
Early this year CN had 363 trailers in piggyback service. A hundred and forty-three of these are equipped with demountable bogies, which means that the four rear wheels of the trailer can be taken off and left behind, and a new set of wheels picked up at destination. Thirty-eight of these trailers can be transported simply as containers. Trailers that provide heat and others that can be either heated or refrigerated operate in our Plan Two.

The most widely-used method of putting a trailer on a flat car is called circus-type loading, a term that recalls garishly-painted vans and prancing horses. This procedure, however, is carried out with quiet efficiency.

The cars are spotted at a siding with a ramp at one end. Each flat car is equipped with two apron plates. When these are lowered they form a bridge from car to car. A tractor backs the trailer up the ramp and along the cars to the one on which the trailer is to ride.

Tractors that do this job are equipped with a hydraulic fifth wheel, a device that raises or lowers the circular metal plate to which the trailer is attached. Operated from the cab of the tractor, this arrangement allows the driver to pick up or set off a trailer without raising or lowering the dolly wheels on which the front of a detached trailer rests. Yellow guide lines on the tractor and on the side of the flat car indicate the exact spot where the trailer must stand so that the hitching device will engage the kingpin.

The tractor sets off the trailer and drives away. The air is let out of the



trailer's brakes. In the early days of piggyback, trailers were tied down by means of wheel blocks, jacks and chains. This cumbersome method has been replaced by a rugged, time-saving piece of equipment, the ACF hitch — the initials stand for American Car & Foundry, makers of the device.

When not in use, the hitch lies flat against the car floor. Using an electric wrench, a member of the tie-down crew raises the hitch until it engages the trailer's kingpin. Another operation with the wrench closes a set of jaws that lock on to the kingpin.

Allowing about six inches of free play, this one hitching device is sufficient to anchor the trailer securely. Finally, the dolly wheels are raised a few inches from the car floor. Unloading the trailer is approximately the same procedure carried out in reverse. Time consumed for placing a trailer aboard and fastening it down averages five minutes.

A revolutionary new method for loading trailers on flat cars was tried out last year at Montreal, and is now in operation at Edmonton. The "Travelift" is a self-propelled overhead crane. Moving on rubber tires, it straddles track and flat car. Its four giant claws can lift a 70,000-pound load, eliminating the necessity for ramps and tractors, and doing away with a considerable amount of switching. Tests showed that it could place a trailer on a flat car in an average time of 4.6 minutes, unload in 3.2 minutes.

A new trailer servicing center was opened at Bonaventure Terminal, Montreal, in March of this year. Primarily for piggyback equipment, it provides four bays for washing trucks, tractors and trailers, and for making minor repairs.

Piggyback has created jobs in CN

Above: *Westbound piggyback loads and leaves Montreal yards.*

for vehicle operators who jockey trailers on and off the cars; for loading ramp supervisors; for carmen in the tie-down crews; and for freight staff who carry out checking, weighing, applying seals and a variety of other tasks. All are members of the Canadian Brotherhood of Railway, Transport and General Workers.

What does piggyback add to the railway picture? The crux of the matter was clearly expressed by President Donald Gordon when he appeared before the 1960 Parliamentary Sessional Committee on Railways, Air Lines and Shipping. "Basically, we regard the truck as the best instrument for retailing transportation services and the railway for wholesaling" he said. In this context, the major interest of the railway is the long-distance haulage of bulk commodities.

"On the other hand, road transport is a better agency for the collection and distribution of much traffic and is more economical and faster for short-distance service.

"This statement is, of course, a generalization. It is not possible in every instance to draw a hard and fast line, since the character and condition of the traffic itself provide infinite variation in which one method of transportation may have an advantage over the other, or in which combinations of both methods may be the most efficient answer."

Piggyback Plan Two gives the shipper that efficient combination. It bridges the gap between carload and less-than-carload freight. Where the volume isn't large enough to make a private siding at a shipper's plant practicable, or where a siding would be uneconomic because of geographical location, piggyback gives the shipper door-to-door service. When required, a trailer can be placed at a shipper's factory for loading, and picked up later by one of our tractors.

Piggyback's flexibility combines the low costs of the railway and its ability to move quickly over its own right of way with the convenience of truck movement to anywhere that a highway goes.

From the point of view of the "for hire" highway carrier, Plan One provides an alternative to the highway. It offers more efficient use of his tractor fleet, permitting a larger proportion of trailers to tractors than would otherwise be possible. It gives greater freedom from the hazards of the weather, for instance, in a climate where roads are often closed during the spring thaw. Where weight limitations are involved, the piggyback flat car allows more leeway than many highways.

Speed and efficiency in train assembly are important factors in piggybacking. Switching operations have to be kept to a minimum.

In some instances, train schedules have been streamlined to speed traffic. Piggyback trailers are carried on the "Expediter" between Toronto, Hamilton and the Niagara Penninsula, and on the "Highballer" to Western Canada, providing second-morning delivery at Winnipeg, third-morning at Edmonton and fourth-afternoon at Vancouver.

With less handling of shipments, piggyback has resulted in fewer claims for loss and damage.

About the only commodities we don't handle by piggyback are explosives. Successful tests have been made transporting automobile highway carriers, but so far CN hasn't entered this business.

We've carried out some experiments with containers and the equipment needed to load them on flat cars. This may open up new fields.

The Railway Association of Canada says: "Piggyback is a natural economic development in the technique of handling goods, and as such merits careful study by regulatory authorities, transport economists and others in order that its inherent advantages can be exploited to the fullest for the benefit of the shipper and the general public. As a result, it may be necessary to examine the whole field of regulatory problems from the standpoint of this new technological development which offers door-to-door service with long distance speed at low cost for almost every type of commodity movement."

What's next?

An interesting sidelight is that piggyback has led to the coining of some queer words — "fishyback," the loading of trailers or containers aboard ship; and "birdyback," the transport of containers by air, still a bit visionary as far as commercial use is concerned.

Some enthusiasts regard piggyback as a milestone in the history of transportation. One of the pioneers in the design of piggyback equipment and now president of Piggyback Inc., U.S.A., Deodat Clejan, said, "Within a very few years 25 per cent of motor carriers' long distance business will go piggyback."

More conservative opinion is that piggyback fills a need and that its growth up to the present is encouraging.

Predictions are risky, but in the constantly changing transportation scene it looks fairly certain that for some time to come piggyback will play a colorful part. ■

System News

Dale Berggren, DWP yard foreman, whose prompt action saved a life.

A two-and-a-half year old Duluth youngster owes his life to the quick thinking and acting of DWP yard foreman Dale Berggren, who, at considerable risk to himself, snatched the boy from the path of a moving train.

Mr. Berggren was riding the van of a train backing down the main line, when he and his mates saw a group of children playing on the track. The "back-up" whistle was sounded, and the kiddies all scrambled clear except one little boy, who apparently "froze" with fright and remained on the track.

Conductor E. G. Higgins immediately applied the emergency brakes, but Mr. Berggren saw that the train would not stop in time, so he ran ahead and pulled the youngster to safety.

Last steam locomotive on the Atlantic Region has been turned over to the City of Moncton for permanent display in Moncton's Natural Park.

The presentation ceremony consisted of the handing over by D. V. Gonder, regional vice president, of special "train orders" to Mayor Sherwood Rideout.

His Worship knew exactly how to handle the orders. In private life he is a CN trainmaster.

The engine, No. 5270, was built at Montreal in 1918.

Dr. O. M. Solandt, vice president of research and development, was one of a number of Canadians presented with gold medals at a Toronto gathering.

The awards, presented by the City of Toronto to "call attention to the work of distinguished Canadian Citizens in the arts, sciences, business and sport," were made by Mayor Nathan Phillips of Toronto. Also present was Lieutenant-Governor John Kieller Mackay, lieutenant-governor of Ontario.

New CN station at Windsor evoked favorable editorial comment in the Windsor STAR, which observed, in part, "The building is a tidy modern one. It will suggest to people entering Windsor for the first time that this is not a passe community but rather an alert, up-to-date city. That was the principal complaint about the old station. It gave the impression that this is a 'hick-town', satisfied with facilities suitable to a 19th century society."

Bachelor of Arts degree has been earned at Queens University, Kingston by Eileen Joan Fulcher, daughter of George Fulcher, electrical supervisor, Northern Ontario Area.

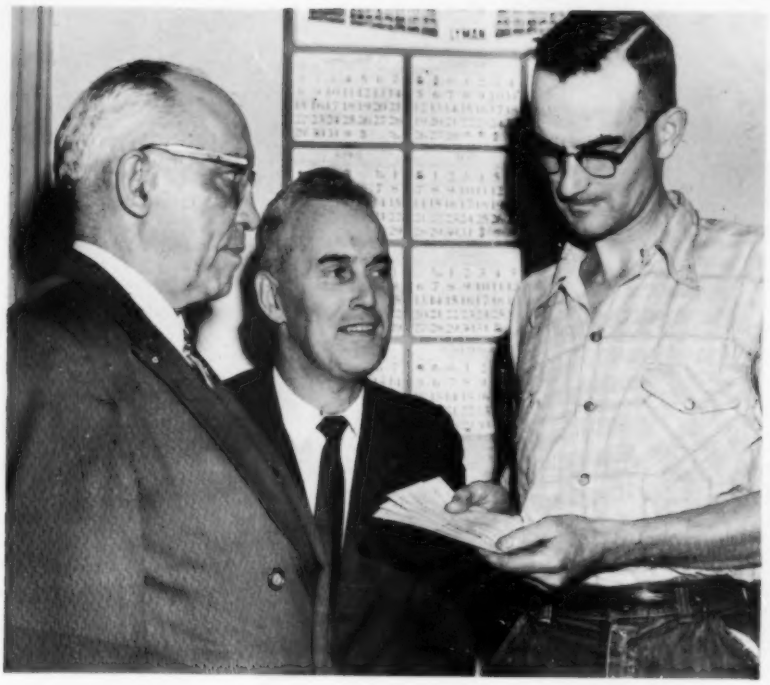
St. John Ambulance Association honors for several CN officers have been sanctioned by Queen Elizabeth.

Named Officer Brother are Howard Grayston, vice president, transportation and maintenance, and William Wilson, vice president, personnel and labor relations.

Dr. R. J. Brown, regional medical officer, Moncton, and Dr. J. P. McGuigan, regional medical officer, Toronto, have been promoted to the rank of Commander Brother, and G. H. Page, first aid instructor, Transcona, has been named Serving Brother.

Regional operation. Effective September 15, operation of the sleeping, dining and parlor car department will become a regional responsibility.

Jurisdictional changes resulting from the change are as follows: the superintendent at St. John's will report to the manager, Newfoundland Area; superintendent at Halifax to general



W. M. Mullins, right, coach carpenter at Moncton, whose idea for improvement in valve-grinding operation netted him $500 from Employees' Suggestion Plan, accepts award from H. H. Hicks, general superintendent, equipment, left, and Ken Thomson, superintendent.

Dan Will, senior analyst, data processing at Montreal, elected a national vice president of the National Machine Accountants Association.

manager, Atlantic Region; superintendent at Montreal to general manager, St. Lawrence Region; superintendent at Toronto to general manager, Great Lakes Region; assistant superintendent, Chicago, to vice president and general manager, GTW; general superintendent, Winnipeg, to general manager, Prairie Region; superintendent, Vancouver, to general manager, Mountain Region.

The general manager of the Prairie Region will be responsible for advertising and assigning positions in the Prairie and Mountain Regions.

Safe drivers. Three CN Express drivers at Woodstock have been awarded Ontario Safety League badges for their good driving records.

John Anderson received his badge for one year of accident-free driving; Robert Wardell for five years and Brock Pierce for nine years.

At Cochrane, Lloyd Shortt was presented with a badge for his two-year clear record.

Duluth, Winnipeg and Pacific employees have been named group winners in the National Safety Council (USA) 1960 Railroad Employees' National Safety Award.

The D W P placed first in safety among Class 1 railroads averaging one to two million man-hours of work.

A new slate of officers has been elected for the Capreol-Sudbury CNRA. Members of the executive are Fred Thompson, president; Bill McKinley, vice-president; Lena Veraldi, secretary; Dell Henderson, treasurer; Frank McDonald, membership chairman; and "Fergy" Ferguson, publicity chairman.

Equipment orders worth $965,000 have been given by CN to Montreal Locomotive Works, Ltd.

The orders provide for the construction of forty 70-ton steel covered hopper cars, ten aluminum tank-type covered hopper cars and 25 double-hitch highway-trailer flat cars.

The equipment is expected to be delivered in September and October.

Appointments and promotions

Bordnick, Frank, yardmaster, Chicago, now terminal trainmaster (Chicago to Griffith, inclusive) there.

Boyd, W. G., associate commission counsel, Montreal, now commission counsel there.

Constable, H. G., freight sales representative, Moncton, now freight sales representative for Atlantic Region Plan II piggyback operations there.

Chambers, S. S., assistant to the general manager hotels, now general manager CN Hotels Limited, Montreal.

Conaway, G. R., general agent, passenger department, Chicago, now sales manager for off-line offices of CN in the U.S. and on the CV, with headquarters at Chicago.

Cote, Lionel, assistant general solicitor, Montreal, now general counsel there.

Couture, C. E., general passenger agent, Montreal, now assistant manager, passenger promotion, there.

Croft, Victor, chief accountant, Moncton, now regional comptroller there.

Dewan, W. J. assistant manager of public relations, Moncton, now assistant manager, public relations, St. Lawrence Region, Montreal.

Eberhardt, R. J., general agent, passenger department, Los Angeles, now passenger sales manager, Chicago.

Frank, J. M. freight traffic manager, rates, Chicago, now regional manager-rates there.

Gilbert, W . E., export and import representative, Chicago, now foreign freight sales supervisor there.

Gillespie, C. C., superintendent of road transport, Moncton, now general superintendent of highway services there.

Gohr, Walter, general freight agent, Chicago, now general rates officer there.

Good, L. G. yardmaster, Ottawa, now acting general yardmaster Ottawa terminals.

Hall, J. T. sales representative, Memphis, Tenn., now general agent, freight and passenger departments, there.

Halper, P. C., staff assistant, passenger traffic department, Chicago, now administrative assistant, sales department, there.

Hamilton, C. D. J. chief clerk, convention and special traffic bureau, Montreal, now supervisor of tours there.

Hayward, Eric, office assistant, Winnipeg, now assistant manager of real estate, Prairie Region, with headquarters at Winnipeg.

Howard, C. K., general agent, passenger traffic department, Minneapolis, now assistant general agent, sales department, Los Angeles.

Howard, T. C., office assistant to the branch manager of sales at Saskatoon, now freight sales representative there.

Hughes, J. N., ticket seller, Halifax, now car distributor there.

Jacobite, R. A., passenger sales representative at Saskatoon, now branch manager, passenger sales, Regina.

Kemp, P. W. freight sales representative, Cleveland, now general agent, freight and passenger sales, there.

Kirk, E. C., assistant general manager real estate, Montreal, now manager of real estate, Prairie Region, Winnipeg.

Kyle, D. W. regional safety supervisor, Moncton, now regional training officer there.

Langley, Graham, training supervisor, Moncton, now industrial agent for Atlantic Region there.

LeClair, K. H., assistant manager, tariff and ticket bureau, Montreal, now technical sales officer there.

Lee, E. J., commercial freight and dairy agent, Cedar Rapids, Ia., now general agent, sales department, there.

Lobban, T. C., industrial representative, Vancouver, now industrial agent, Prairie Region, Winnipeg.

MacCallum, W. T., chief clerk to the general freight traffic manager, Chicago, now traffic analyst, sales department, there.

MacDonald, R. J., general agent, freight traffic department, Pittsburgh, now assistant freight sales manager, Chicago.

Macdougall, J. W. G., commission counsel, Montreal, now general solicitor there.

MacMaster, J. R., chief rate clerk, Moncton, now training supervisor there.

MacMillan, D. J., secretary to the regional vice-president, Moncton, now commercial piggyback sales represenative, Atlantic Region.

Matthews, J. H., supervisor of administrative services, CN express, Montreal, now superintendent, air services, there.

McDonald, A. D., general solicitor, Montreal, now general counsel there.

McLeod, William, general freight agent, rates, Chicago, now sales manager for off-line offices of CN in the U.S. and on the CV, with headquarters at Chicago.

Medrow, A. J., assistant freight traffic manager, rates, Chicago, now general rates officer there.

Morgan, G. E. chief clerk, general manager's office, CNT, Toronto, now labor relations assistant there.

Murray, W. J., general agent, freight traffic department, Minneapolis, now general agent, freight and passenger sales, there.

Parr, Michael, assistant general freight agent, rates, Chicago, now freight rates officer there.

Rundquist, G. O., general agent, freight traffic department, Los Angeles, now general agent, freight and passenger sales, there.

Street, A. E., system transportation engineer, Montreal, now assistant manager of Saskatchewan area, Saskatoon.

Taschereau, Pierre, solicitor, Montreal, now assistant general solicitor there.

Wood, L. A. methods analyst, Montreal, now supervisor transportation there.

Submarine bridgemen. Joseph Cummings, bridge and building foreman, and John Vemb, bridgeman, both of Belleville, turned their knowledge of skin-diving to good purpose when a derailment took place on the Oshawa subdivision earlier this year.

Two derailed cars tumbled into the Trent canal, and clearance of the waterway, as well as salvage operations, had to be done in a hurry.

Railroading frogmen Joseph Cummings, left, and John Vemb.

The B & B men volunteered their services, and, as reported by Alex Wilson, operations manager at Belleville, ". . .they demonstrated their ability as fully trained and competent skin divers and proved most valuable... in both locating material and assisting in salvage operations."

Cover Girl. To satisfy the curiosity of our readers as to the identity of last month's Keeping Track cover girl, we asked Tommy Hilton, CN staff photographer, to take a picture of her from the front. Here she is — Madge Webster, automatic operator on Plan 23, CNT, Montreal.

CN Scripto pen and pencil Set Now Available.

This attractive matching two-tone pen and pencil set, featuring the new CN symbol printed in black, comes in a smart, up to date "see through" display gift box. The pen gives you natural slant writing and contains the famous Scripto RX ink. The pencil has a practical exposed eraser and features Scripto's revolutionary plastic drive mechanism.

These sets are available in five different shades — black, orange, white, green and blue. For an additional charge of 75 cents per set, you may have a complete name of your choice embossed on both pen and pencil.

$3.00 Value for

Only $2.25

Fully Guaranteed

Made in Canada, By Scripto.

To avail yourself of this special offer fill out this coupon and mail immediately to:

Mr. H. M. Parry, Secretary
CNRA (Montreal) Inc.
c/o Canadian National Railways
P.O. Box, 8100, Montreal 3, Que.

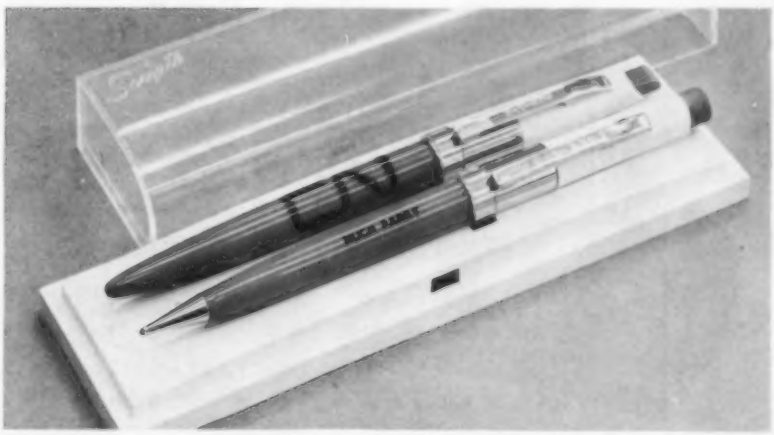
Please send COD_____ pen and pencil sets with name_____ embossed

Black__White__Blue__Green__Orange__

Name

Address

City Prov.



Above: *CN men who devote a large part of their spare time to army matters. Studing a military map of Montreal are, at right, Major George Norman, chief accountant, real estate department, Montreal, and Sergeant Major Gerald McElheron, revenue accounting. They serve with the Victoria Rifles of Canada.*

Right: *James McNamara, of CNRA Rifle Club, Toronto. Jimmy won the Gold Shield offered for competion by Dominion Marksmen's Association.*

Above: *CN men played leading role in Winnipeg's "Save a Life Week" sponsored by St. John Ambulance Association. Watching Mayor Juba sign proclamation opening campaign are, from left, W. A. Armstrong, supervisor of first aid, Prairie Region; Dr. Emmett Dwyer, regional medical officer, and Constable James Voss, who acted as patient when Mayor Juba demonstrated artificial respiration for press, TV and radio men.*

WORKING WITH CANADIANS IN EVERY WALK OF LIFE SINCE 1817

Rare 50-year pass is presented to Harry Price, right, office assistant to the general superintendent of transportation at Winnipeg. Making the presentation is G. Rodger Graham, regional vice president.

The end of the run

"Sam" Bertrand, retiring as stationmaster at Ottawa, was received by Governor General Vanier and Mrs. Vanier at Government House, and congratulated on his 50 years of service to CN. With them in the picture is Mrs. Bertrand.

Six Capreol employees, with service records ranging from 33 to 40 years, were honored on their retirement in the northern Ontario railway community.

They were Edward Roy, Joseph Martel, Charles Goltz, Michael Mostowy, Arthur Matthew and Frank Melazzi.

G. H. Bloomfield, Northern Ontario Area manager, presented the pensioners with engraved purses of money before a crowd of several hundred friends and fellow employees.

Three retiring Toronto men, all members of CN War Veterans' Association, were feted at a retirement party, where they received the parting gifts of their associates.

The men are Richard Weldon, Joseph Williams and W. J. Evans.

The veterans were also presented with honorary life memberships in the CBRT & GW.

Forty years of railroading have ended for Adam McGregor, mechanical engineer for the Prairie Region.

Associates presented him with a movie camera at a testimonial dinner. Guests included J. R. McMillan, vice president; E. J. Cooke general manager, and H. Taylor, general superintendent, equipment.

Prairie Region officers also presented Mr. McGregor with a purse.

Charles Fulton, mechanical assistant, engineering department, Winnipeg, was presented with a purse, by A. S. Batho, engineer of buildings, the gift of his associates, when he retired.

Mr. Fulton also received a book, presented by Mrs. Flora Collinson, and was honored at a testimonial dinner.

Harry Lynn, stockeeper at Calder Yard, was presented with a clock radio, a purse, a table lamp and a life membership in the CBRT & GW when he ended 39 years of railroading.

Mr. Lynn was president of the local chapter of Army, Navy and Airforce Veterans for eight years and provincial president for two years. He has been local chairman of CBRT & GW for 15 years.

Miss L. L. Reed was honored by her associates and presented with a Canada Savings Bond when she brought to a close 48 years in the general manager's office, CN Telecommunications, Toronto.

Presentation of the gift was made by H. J. Clarke, assistant general manager.

Roy Bennett, conductor on the GTW at Durand, was honored on his retirement at a ceremony at which a 45-year service pin was presented to him.

Taking part were William Munce, trainmaster; Fred Summerhays, chief despatcher; T. D. Ash, superintendent and J. G. Walker, assistant superintendent.

Peter MacDonald, crane operator at Moncton, received a parting gift from his associates when he retired after 40 years with CN.

Making the presentation was Wallace Kierstead, president, local 629, International Brotherhood of Electrical Workers.

Gordon Brown, express agent at South Porcupine, has retired after 42 years' service.

Mr. Brown started as a junior clerk and after six years was made agent at Porquis, and later at Englehart.

Two Ottawa yard foremen, John Timlin, 48 years' service, and Francis Little, 44 years', were honored by their associates when they closed out their railroading careers.

Mr. and Mrs. Earnie Young were guests of honor at a party at Kelliher, Sask., marking Mr. Young's retirement as agent-operator there.

Jack Hayworth of Moncton, senior conductor on the Ocean Limited and one of the best known train-crew men in the Maritimes, has retired to end 43 years with the Company.

"Andy" Eagle, branch manager, passenger sales, Regina, has brought to a close 41 years with the company.

His associates presented him with a fishing outfit at a reception in his honor.

Above: *Robert Sommerville is honored as he retires from post of general manager of CN hotels. At right is S. S. Chambers, Mr. Sommerville's successor, and at left C. J. Monaghan, assistant to the general manager.*

Above right: *Hale, hearty and happy are Mary, Frank and Winnifred Puncher, of Charlottetown, Canada's oldest triplets. Mr. Puncher retired last year after 42 years with CN. They celebrated their 65th birthday in May.* Charlottetown Patriot photo.

Hoping for something or saving for it?

•

Ask about the Royal's "Two-Account Plan".
Makes saving easier.

THE ROYAL BANK OF CANADA

RB-58-2

Above: *Retiring as assistant superintendent of Central Vermont's Southern Division, Frank Webber receives parting gift of associates. From left, Mrs. Webber; Mr. Webber; Leo Audette, despatcher; E. J. Movalli, CV superintendent.*

George Betz, regional comptroller at Moncton, who has brought to a close service with CN that started in 1915. He spent his entire career at Moncton.

women's pages

Above: *Jackie Goguen, a member of the Moncton Figure Skating Club, strikes a fetching pose in one of her winter carnival costumes.*

Above right: *Jackie, during office hours, is kept busy in her position as stenographer in the office of the area manager.*

Beauty and talent aplenty

One of the prettiest railroaders on the Atlantic Region has a waist you can span with both hands, luxuriant auburn tresses and a beguiling French accent. She is Jacqueline Goguen, stenographer in CN's Moncton office.

The vivacious, 20-year-old miss spends much of her spare time doing professional modelling. She likes the work, the hours, the people. With a little luck and some hard work, she may one day find her picture in the pages of a fashion magazine.

She was given her first chance at modelling two years ago shortly after she joined the staff of the area manager's office. A group of buyers had visited a downtown store and asked to see some clothes modelled. At that time, few stores in Moncton could provide models.

A phone call was made to Jackie, who had already gained a reputation as a local beauty with the Moncton Figure Skating Club. It took her three minutes to model the dresses; she received $20.

"That works out to almost seven dollars a minute, " laughs Jackie. "You can see one reason why I became interested in modelling."

This encouraged her to take a modelling course.

"It's not as easy as it looks," says Jackie. "A great deal depends on poise and charm and knowing how to dress."

The star pupil of Mrs. Nora Walters' modelling course has certainly majored in charm and poise. She also has a tastefully selected wardrobe. Her secret?

"Some people have an innate good taste in clothes. I think I am like most. I had to acquire mine. Certainly it helps if you have an instructor, or can receive advice from someone who knows how to dress. Otherwise, it is like anything else. You need patience and you have to work at it all the time. I think, too, you should be bold enough to experiment with colors and styles."

In the two years since that first phone call there has been a small but growing demand for models among Moncton's bigger stores. Jackie has had a goodly share of the opportunities.

Besides working for the stores, Jackie has modelled in charity fashion shows and has appeared on television a number of times. She recently had a part in "Trend 61", a CKCW-TV program that took a close look at this year's styles.

Jackie says she has had several offers to work with travelling agencies as a sample room model. She has turned them all down with the explanation that she does not like the idea of living out of a suitcase.

Though the thought of becoming a model appeals to her, she says, "I'm going to think about it before I make up my mind."

For the past six years Jackie has been better known as a member of the Moncton Figure Skating Club. She trained at Mount Royal Arena and at Shumacher, Ontario, and has toured extensively in the Maritimes. she has also taken part in the annual St. Joseph's University Winter Carnival. An amateur seamstress, she makes many of her own dresses.

Jackie is a graduate of Notre Dame d'Acadie (girls') College in Moncton, and lives at home with her parents, Mr. and Mrs. Arthur Goguen.

And, she's still looking for that certain fellow. . .

Wes Kelley ■

recipes

Karl Fleer, master pastry chef

How would you like to have to bake a thousand pies a week? That is what Karl Fleer, CN terminal kitchen chef, at Montreal, does. Granted, Mr. Fleer has two assistants; nevertheless, his is a mammoth output.

Come Thanksgiving weekend and Karl will have ready 500 pumpkin pies to be served with the traditional Thanksgiving dinners on Canadian National diners across the country.

He has his own favorite recipes for his pies and the hundreds of doughnuts, sweet buns, muffins, cup-cakes and layer cakes he turns out in a week's work, and he is always happy to share them.

"Pie baking is easy, but the crust is the most difficult part", Chef Fleer admits.

"Let the pastry work itself," he advises. "Don't knead it. Just let the ingredients stand for an hour and you'll find the fat and water will combine with the flour, the water will evaporate a little and your pastry will be a success.

"Of course, having a steady oven heat is very important", he adds.

Karl's favorite recipe for pumpkin pie filling is a basic custard one. He admits that the filling is a matter of taste — but all pumpkin pies must have some spices. He suggests adding pecans or almonds for a little variation.

"The most important thing about pumpkin pie," he cautions, "is to serve it fresh — just as soon as it cools." And just as the pie is taken to the table, he recommends a topping of whipped cream.

Karl, a Hanoverian by birth, started baking when he was 14 years old — as and apprentice to his father, a baker par excellence in Germany. He came to Canada in 1928 and since 1948 has been baking for the CN. Now, with his assistants, he supplies trains leaving Montreal to points north, east, south and west in Canada with pastries — using more than 1,000 pounds of shortening a month in the process.

He has a few tips for other kinds of pies: In raisin, add a little apple juice to make the filling tasty; in apple, use lemon and a little pinch of cinnamon and nutmeg — but not too much or the filling will be dark.

Pumpkin custard pie

1½ cups pumpkin (canned)
6 eggs
2 cups granulated sugar
1 teaspoon salt
1 teaspoon ground nutmeg
1 teaspoon ground cinnamon
1 teaspoon ground ginger
1½ cups hot milk
1½ cups hot cream
1 bastingspoon melted butter
(ingredients for two pies)

Beat eggs and sugar well together for at least a couple of minutes. Mix spices in a very little of the milk and cream until smooth. Add remainder of milk and cream and stir this mixture of spices and milk into the first mixture of eggs and sugar. Place pumpkin puree in bowl and gradually add the liquid mixture to it. Fill pie to within ¼-inch of the top and before placing pie in oven; sprinkle each pie with ½ bastingspoon of melted butter. Bake in moderate oven, 375°F., until well done — about 35 to 40 minutes — and of good color.

Pumpkin pecan variation

Before placing pumpkin mixture into pie as in custard pie, sprinkle bottom of each pie with 2 tablespoons of chopped pecan meats and 1 tablespoon melted butter. Fill pie to within ¼ inch of top. Set in oven and bake until ¾ done. Now sprinkle again 2 tablespoons of chopped pecan meats and 1 tablespoon melted butter over each pie. Finish baking until done and of good color.

Almond pumpkin pie

Use same method and ingredients as for pecan pie, except that chopped unsalted almonds are used instead of pecans.

Low-calorie desserts

The nutrients most often found to be low in diets of children and adults, too, are vitamins A and C, calcium and iron. This being the case, more fruits and vegetables and nonfat milk solids are needed in their diets. As these fruits and vegetables are comparatively low in calories they can be used even in the most calorie-sparing diet.

Following are citrus recipes which the family should enjoy.

California salad with lemon-onion dressing

One package onion salad dressing mix, fresh lemon juice; 1 medium head lettuce; 1 medium bunch chicory, romaine or endive; 2 cups bite-size orange pieces, 1 small red onion, sliced thin; ½ cucumber, sliced thin, 1 green pepper, cut in rings; 4 ounces Roquefort cheese, crumbled; 1 navel orange, peeled and sliced in cartwheels.

Combine onion salad dressing mix, as package directs, using fresh lemon juice instead of vinegar. Have salad greens cold and crisp. Tear into bite-size pieces into large salad bowl. Add orange pieces, onion, cucumber, pepper rings and cheese. Toss with enough lemon-onion dressing to moisten. Garnish with orange cartwheels.

Celestial lemon tarts

Two-thirds cup butter or margarine; 1½ cups sugar; 3 whole eggs; ½ cup fresh lemon juice; 1 tablespoon grated lemon peel; 6 to 8 baked tart shells, meringue, coconut.

Cream butter and sugar in top of double boiler. Add whole eggs and egg yolks and mix well. Stir in lemon juice and peel; blend well. Place over boiling water; cook until thick, stirring continually. Chill. Spoon into cooled pastry tart shells. Top with meringue and sprinkle with coconut. Bake.

Meringue

Three egg whites, 6 tablespoons sugar, ½ cut coconut.

Beat egg whites to soft peaks. Gradually add sugar and beat to firm peaks. Spoon a dollop in center of each filled tart. Sprinkle each with a little coconut. Bake in moderately hot oven (400°F.) for 7 to 10 minutes.

fashions

It's not one whit too early to get busy with that fall sewing — even though there may be many more sultry summer days still to come. With this in mind we have selected for you this month three styles which we think will make attractive additions to your autumn wardrobe.

Pattern 9857 is jewel necked with short unmounted sleeves; has eased sheath skirt and self tie belt. Suggested fabrics are cotton knits, wool jerseys, wool tweeds, plaids, checks. Included in pattern is another for a flared single buttoned, lined coat with dropped shoulders, set in three-quarter sleeves and patch pockets. Misses sizes 10-18. Cost: 75¢.

Our second selection is especially designed and proportioned for the Miss 5'3" and under. Pattern 9860, as shown in photograph, is a princess sheath dress with jewel neck, front yoke, set-in three-quarter sleeves and narrow fly front trim. There is another version featuring short sleeves. For further variation it can be made sleeveless with square neck. This style is ideally suited to such fabrics as wool flannels and wool jerseys. Pattern comes in Miss sizes 10-16, and costs 60¢.

Our final choice is a jacket dress. The dress features eased bodice, self-banded V neck, short set-in, sleeves, flared shirt with front panel pleat. The jacket which is slightly below waist has notched collar, set-in below-elbow sleeves and large patch pockets. Cotton suitings, failles, tissue wools, knits wool jerseys are suggested fabrics. Pattern 9898 comes in sizes 14-44, and costs 60¢.

These are Butterick patterns and can be obtained at most departmental or dry-goods stores.

Pattern No. 9857

Pattern No. 9860

Pattern No. 9898

Calling it a day

Above right: *Miss L. C. Pearse, pass clerk, Great Lakes Region, Toronto, 48 years' service.*

Left: *C. W. Smith, right, superintendent, air services, CN Express and TCA Express Services, Montreal, 50 years' service.*

Right: *Jack McPhee, assistant foreman, diesel shops, Calder, 42 years' service.*

Above left: *"Jerry" Poirier, superintendent, CN Express, Montreal division, 42 years' service.*

Above right: *Norm Henry, right, sub agent, Leaside, 47 years' service.*

Left: *A. J. Little, second from left, supervisor of car service, Champlain Area, Montreal, 43 years' service.*

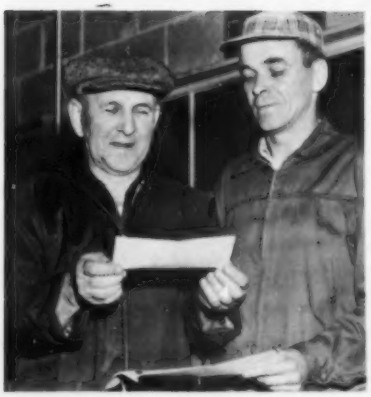
Right: *Ted Lawson, inspector, S D & P C department, Toronto, 37 years' service.*

Left: *Miss Audrey Jamieson, Supervisory aide, CNT, Toronto, 39 years' service.*

Right: *Percy Bonner, chief despatcher, Ottawa, 48 years' service.*

Below right: *E. T. Hardies, right, locomotive engineer, Durand, 44 years' service.*

Below: *W. S. Moxham, superintendent, Saskatoon division, 45 years' service.* Saskatoon Star-Phoenix photo.



Above left: *L. R. Bishop, freight claims agent, left, Prairie Region, 49 years' service.*

Above: *Daniel Petrin, right, general clerk, law department, Winnipeg, 40 years' service.*

Above right: *J. D. Van Iderstine, right, timekeeper, local freight, Winnipeg, 41 years' service.*

Left: *Pat Belliveau, left, carman, Moncton, 40 years' service.*

Right: *Harry Whalen, locomotive engineer, Moncton, 45 years' service.*

New pensioners

Aksaniuk, O. 42 yrs
sectionman
Saskatoon, Sask.

Allen, S. A. 37 yrs
carman
Hanna, Alta.

Allen, W. H. 41 yrs
carman
Niagara Falls, Ont.

Anderson, R. C.
electrician 28 yrs
Montreal, Que.

Armstrong, C. L.
messenger 41 yrs
Toronto, Ont.

Armstrong, W. L.
freight agent 44 yrs
Vancouver, B. C.

Auer, I. 36 yrs
section foreman
Giroux, Man.

Baird, A. M. 44 yrs
freight agent
Kamloops, B.C.

Barley, J.W. 46 yrs
locomotive fireman
Nor. Ont. District

Barker, C. R. 28 yrs
locomotive engineer
Melville, Sask.

Barney, F.W. J. 44 yrs
carman
Longue Pointe, Que.

Barsotta, W. F. E.
manager 48 yrs
Windsor, Ont.

Barter, J. E. 36 yrs
agent-operator
Trenton, Ont.

Bennett, P. J. 3 yrs
freight trucker
Argentia, Nfld.

Bell, W. A. 26 yrs
sectionman
Emo, Ont.

Bertrand, V. F. 35 yrs
locomotive engineer
Quebec, Que.

Bishop, J. G. H. H.
carpenter 41 yrs
Montreal, Que.

Blanchet, J. L. G. A.
signal helper 38 yrs
Montreal District

Boisvert, F. F. 27 yrs
sectionman
Laurier, Man.

Bonner, L. P. 47 yrs
chief despatcher
Ottawa, Ont.

Booth, Miss E. M. P.
typist-transcriber 35 yrs
Montreal, Que.

Boudreau, A. J.,
section foreman 41 yrs
Truro, N.S.

Bould, G. R. 43 yrs
asst. supervisor
Montreal, Que.

Boyd, C. A. 38 yrs
clerk
Peterboro, Ont.

Broadbent, T. 41 yrs
machinist helper
Calder, Alta.

Brown, J. R. 46 yrs
asst. frt. sales manager
Edmonton, Alta.

Brown, W. L. 20 yrs
material watchman
Montreal, Que.

Brunke, W. F. 42 yrs
carman helper
Montreal, Que.

Bundy, C. E. 42 yrs
agent-operator
Avonlea, Sask.

Budgell, G. T. 27 yrs
clerk
Saskatoon, Sask.

Bunka, M. 35 yrs
sectionman
Dauphin, Man.

Bunton, B. C. 40 yrs
head clerk
Toronto, Ont.

Bruns, A. S. 36 yrs
bridgeman & foreman
Scotia Div.

Campbell, C. A.
clerk 40 yrs
Longue Pointe, Que.

Campbell, T. A. 48 yrs
chief disb. accountant
Montreal, Que.

Caron, J. F. L. 21 yrs
e.g. laborer
Edmundston Div.

Carrington, H. C.
insurance 44 yrs
commissioner
Montreal, Que.

Carter, W. P. 38 yrs
plater and buffer
Moncton, N.B.

Cepin, J. 15 yrs
bunkroom attendant
Toronto, Ont.

Chaput, J. A. F.
yard helper 45 yrs
Montreal, Que.

Church, C. 37 yrs
sectionman
Paris Jct., Ont.

Clarke, W. T. 43 yrs
agent-operator
Craik, Sask.

Coady, L. P. 39 yrs
special passenger agt.
Montreal, Que.

Coderre, J. A. O.
yardman 21 yrs
Montreal, Que.

Concklin, H. E. 33 yrs
general agent
Memphis, Tenn.

Connell, W. R. R.
trainman 42 yrs
Edmonton, Alta.

Cormier J. A. E. 37 yrs
checker
Montreal, Que.

Coulter, J. H. 21 yrs
yard foreman
Toronto, Ont.

Coulton, C. E. 20 yrs
car inspector
Mimico, Ont.

Craig, J. H. 16 yrs
switchtender
London, Ont.

Croy, L. H. 33 yrs
terminal trainmaster
Chicago, Ill.

Culhane, J. L. 42 yrs
locomotive engineer
Montreal District

Cybart, A. 26 yrs
carpenter
Edmonton, Alta.

Dakins, G. L. 39 yrs
crossing watchman
London, Ont.

Dalpe, J. E. G. 42 yrs
brakeman
Montreal, Que.

Day, A. A. 36 yrs
yardman
The Pas, Man.

Dametto, A. P. 37 yrs
class. laborer
Hamilton, Ont.

Dawkins, N. 18 yrs
sectionman
Belleville, Ont.

DeBlieck, A. 40 yrs
machinist
Calder, Alta.

Donnellan, N. C. 34 yrs
rough carpenter and mason
Scotia Div.

Drysdale, J. J. 30 yrs
tray boy
Ottawa, Ont.

Dube, J. L. A. 37 yrs
foreman
Edmundston, N.B.

Durand, O. 17 yrs
locomotive engineer
Winnipeg, Man.

Durocher, A. O.
petty storeman 37 yrs
Montreal, Que.

Dushko, N. 20 yrs
sectionman
Lakehead Area

Dutil, J. A. E. 31 yrs
locomotive fireman
Quebec District

Eagle, A. F. 40 yrs
branch manager
Regina, Sask.

Edey, H. E. 32 yrs
sectionman
Neepawa, Man.

Elliott, G. L. 47 yrs
machinist
Montreal, Que.

Evans, W. J. 32 yrs
requisition clerk
Toronto, Ont.

Ewaskareiv, Mrs. M.
cleaner 35 yrs
Winnipeg, Man.

Ferguson, D. F. 40 yrs
sectionman
Lindsay, Ont.

Finley, A. T. 40 yrs
perishable fruit inspect.
Toronto Ont.

Flagler, B. J. 42 yrs
machinist
Belleville, Ont.

Furuya, M. 39 yrs
machinist
Mimico, Ont.

Garcin, H. J. 15 yrs
watchman
Corner Brook, Nfld.

Gaudet, A. 20 yrs
blacksmith helper
Moncton, N.B.

Germain, J. S. 45 yrs
agent-operator
St.Paul l'Ermite, Que.

Giecko, J. I. 33 yrs
sectionman
Hearst, Ont.

Gifford, S. H. 43 yrs
locomotive engineer
London, Ont.

Gillen, Miss E. 38 yrs
rate clerk
Oshawa, Ont.

Gleeson, A. 41 yrs
issuer
Sarnia, Ont.

Gohier, M. J. O.
carman 47 yrs
Montreal, Que.

Goode, I. F. 43 yrs
agent-operator
Camrose, Alta.

Gordon, H. G. 49 yrs
asst. to vice-president & general mgr.
Montreal, Que.

Gordon, W. E. 41 yrs
receiver
Calder, Alta.

Grafham, E.W. 18 yrs
carman helper
Saskatoon, Sask.

Graham, J. 35 yrs
car foreman
London Ont.

Graham, K. M. 40 yrs
assistant foreman
Hamilton, Ont.

Grant, J. M. 40 yrs
conductor
Ottawa Div.

Gray, A. L. 40 yrs
clerk
Saint John, N.B.

Green, J. 32 yrs
asst. section foreman
Belleville, Ont.

Green, W. C. 36 yrs
crew despatcher
Vancouver, B.C.

Grichen, W. C. O.
carman 43 yrs
Ottawa, Ont.

Grocholski, J. 26 yrs
laborer
Fort Rouge, Man.

Hancock, W. C. 36 yrs
sectionman & section foreman
Owen Sound, Ont.

Hanington, W. M.
machinist 20 yrs
Moncton, N.B.

Harvey, M. L. 44 yrs
chief clerk
Montreal, Que.

Henderson, J. R.
trainman 35 yrs
Vancouver, B.C.

Henry, N. 46 yrs
sub agent
Leaside, Ont.

Hogan, A. H. 31 yrs
coordinator of joint facility accounting
Montreal, Que.

Hupalo, J. 19 yrs
chef
Winnipeg, Man.

Huston, W. H. 34 yrs
locomotive engineer
London, Ont.

Hutchison, H. 42 yrs
foreman & asst. B&B master
Prince Albert Div.

Jacobs,W. C. F. 40 yrs
accountant
Toronto, Ont.

Jerome, G. H. 36 yrs
constable
Belleville, Ont.

Johnston, N. B. 28 yrs
carman
Toronto, Ont.

Jordan, H. E. 39 yrs
crossing watchman
Lindsay, Ont.

Kaziuk, S. 23 yrs
sectionman
Diamond, Man.

Keale, A. P. 44 yrs
ticket agent
Hamilton, Ont.

Keroack, L. H. R. 41 yrs
shed foreman
St. Jerome, Que.

Kill, C. M. 43 yrs
assistant foreman
Transcona, Man.

Kitzul, P. 22 yrs
sectionman
Agate, Ont.

Kuca, J. 30 yrs
carman
Windsor, Ont.

Labrecque, J. C. 33 yrs
electrician
Montreal, Que.

Lafrance, J. M. A. 43 yrs
train messenger
Eastern Div.

Land, A. A. 24 yrs
sectionman
Hagersville, Ont.

Laschuk, N. 35 yrs
section foreman
Hawker, Sask.

Laurin J. V. 20 yrs
checker
Montreal, Que.

Lavery, E. A. 48 yrs
special sales rep.
North Bay, Ont.

Lavoie, J. J. B. 18 yrs
Laborer & P.F. inspector
Mont Joli, Que.

Lawson, T. E. 35 yrs
platform inspector
Toronto, Ont.

Leblanc, J. A. 21 yrs
sectionman
Dalhousie Jct., N.B.

Leblanc, J. N. 30 yrs
plumber helper
Maritime Area

Lefler, L. L. 32 yrs
sectionman
Simcoe, Ont.

Lehman H. 34 yrs
sectionman
Pembroke, Ont.

Leriche, F. A. 17 yrs
Janitor
Port aux Basque, Nfld.

Lesel. an,W. 26 yrs
machinist
St. John's, Nfld.

Lipiec,W. 20 yrs
janitor
Armstrong, Ont.

Little, J. A. 42 yrs
supervisor car service
Montreal, Que.

Lofthouse, F. 37 yrs
air express agent
Montreal, Que.

Maillet, J. M. 40 yrs
section foreman
Valcartier. Que.

Martelock, J. 38 yrs
carman
Ottawa, Ont.

Martin, R. A. 31 yrs
freight checker
Sydney, N.S.

Mason, J. 31 yrs
car cleaner
St. John's, Nfld.

Masson, Miss C. Y. 43 yrs
clerk
Montreal, Que.

McAteer, W. 45 yrs
locomotive engineer
So. Ont. District

McCaffrey, J. J. 17 yrs
messenger
Pacific Div.

McColl, T. 36 yrs
section foreman
Kinmouth, Ont.

McDonald, W. C. 32 yrs
sectionman
Avondale, N.S.

McKeever, A. 44 yrs
conductor
Edmonton, Div.

McKinnon, A. 42 yrs
agent-operator
Elma, Man.

McLaughlin, E. 30 yrs
watchman
Winnipeg, Man.

McLean, S. L. 47 yrs
trans. assistant
Edmonton, Alta.

McMeekin, J. 30 yrs
carman
Transcona, Man.

McMillan,W. J. 34 yrs
signal helper
Toronto, Ont.

McQueen, J. 38 yrs
carman
Transcona, Man.

Mees, J.W. 43 yrs
machinist
Montreal, Que.

Meldrum, H. H. 17 yrs
locomotive engineer
Bridgewater, N.S.

Mennie,W. C. 29 yrs
sectionman
Palmerston, Ont.

Miller, G. M. 29 yrs
foreman
St. Thomas Div.

Mills, E.W. 40 yrs
locomotive foreman
Hanna, Alta.

Mooney, J. C. 32 yrs
towerman
Niagara Falls, Ont.

Mootrey, R. H. 20 yrs
boilermaker helper
St. John's, Nfld.

Morin, J. V. P. 47 yrs
stationery supervisor
Montreal, Que.

Morneau, J. E. E. 35 yrs
sectionman
Estcourt, Que.

Moxam,W. S. 38 yrs
superintendent
Saskatoon, Sask.

Munro, G. 40 yrs
boilermaker
Nutana, Sask.

Nadon, J. L. 25 yrs
yard helper
Montreal, Que.

Nicholl,W. C. 44 yrs
locomotive engineer
Bridgewater, N.S.

Nicholson, Miss.M. C. 45 yrs
clerk
Toronto, Ont.

Nolan, J. E. 48 yrs
chief clerk
Burlington, Vt.

Norman, H. 41 yrs
engineering assistant
Detroit, Mich.

O'Brien, F. 30 yrs
foreman
Capreol, Ont.

Odynsky, G. 27 yrs
sectionman
Drumheller E., Alta.

O'Leary, Miss C. P. 44 yrs
clerk
Montreal, Que.

Oliver, Miss H. 45 yrs
secretary
Toronto, Ont.

O'Malley, C.W. 34 yrs
clerk
St. Catharines, Ont.

Owens, F. 36 yrs
sectionman
Avonlea, Sask.

Paquette, J. F. A. 15 yrs
crossing watchman
Montreal, Que.

Pardy, R. 45 yrs
section foreman
Bishops Falls, Nfld.

Patterson, L. A. 30 yrs
ticket clerk
Brantford, Ont.

Paul, P. C. 44 yrs
conductor
Nor. Ont. District.

Pear, F. J. 37 yrs
locomotive engineer
St. John's Nfld.

Pelkey, J. F. 40 yrs
section foreman
Black Rock, N.Y.

Petrin, D. M. 39 yrs
general clerk
Winnipeg, Man.

Phillips. D. 44 yrs
machinist
St. John's, Nfld.

Pilbeam, J. 45 yrs
painter
Prince Albert Div.

Pincivero, J. 38 yrs
section foreman
Allandale, Ont.

Pion, A. G. 40 yrs
yard helper
Montreal, Que.

Plaskett, F. A. 39 yrs
burner
London, Ont.

Poirier, J. J. 42 yrs
superintendent express
Montreal, Que.

Popiel W. 32 yrs
laborer
Transcona, Man.

Potvin,W. J. 43 yrs
agent-operator
Killaloe, Ont.

Prevost, H. P. 40 yrs
locomotive engineer
Nor. Ont. District

Pszeniczny, M. 37 yrs
crossing watchman
Toronto, Ont.

Ramanoff, A. E. 39 yrs
sectionman
Garneau, Que.

Ranieri, D. 34 yrs
class. laborer
Toronto, Ont.

Raphael, D. 40 yrs
sectionman
Lytton, B.C.

Rasmussen, S. L. 35 yrs
laborer
Fort Frances, Ont.

Reid, J.W. 27 yrs
machinist helper
Montreal, Que.

Robertson, A. M. N. 33 yrs
pipefitter helper
Montreal, Que.

Robin, J. A. J. O. 44 yrs
roadmaster
Drummondville, Que.

Rohrich, A. 40 yrs
freight trucker
Regina, Sask.

Romanko, S. 40 yrs
sectionman
Toronto, Ont.

Rowland, F. J. 39 yrs
assistant agent
St. Paul, Alta.

Russell, N. R. 43 yrs
traffic solicitor
Toronto, Ont.

Ryder, H. R.W 45 yrs
agent
Niagara Falls, Ont.

St. Amour, Mrs. A. 15 yrs
cleaner
Montreal, Que.

Sauve, J. A. 38 yrs
elevator operator
Ottawa, Ont.

Seguin, F. D. 32 yrs
carman
Montreal, Que.

Sikstrom, I. 39 yrs
sectionman
Edmonton, Alta.

Sirois, J. P. I. 20 yrs
car distributor
Edmundston, N.B.

Smith, R. A. 15 yrs
sectionman
Fort Erie, Ont.

Snaychuk, N. 35 yrs
cook
Edmonton, Alta.

Sommerville, R. 32 yrs
general manager hotels
Ottawa, Ont.

Steeves, F. F. 21 yrs
carpenter
Moncton, N.B.

Stevens, J.W. 47 yrs
div. car supervisor
Halifax, N.S.

Szpotowski, T. 38 yrs
sectionman
Edmonton, Alta.

Tardif, J. A. G. 41 yrs
city ticket agent
Montreal, Que.

Tate, J.W. 44 yrs
agent
Sudbury, Ont.

Thomson, D. R. 34 yrs
crossing watchman
Kingston, Ont.

Thomson, H. 30 yrs
yard foreman
Edmonton, Alta.

Toms, S. E. 41 yrs
plumber
Belleville, Ont.

Tondreau, J. R. G. 23 yrs
machinist helper
Limoilou, Que.

Trimble,W. H. 44 yrs
locomotive engineer
Transcona, Man.

Turbide, F. 23 yrs
inspector
Riviere du Loup, Que.

Upshall, C. 34 yrs
sectionman
Grand Falls, Nfld.

Vacher, F. J. 28 yrs
crossing watchman
London, Ont.

Van Iderstine, J. D. 40 yrs
timekeeper
Winnipeg, Man.

Webber, F. M. 47 yrs
asst. superintendent
New London, Conn.

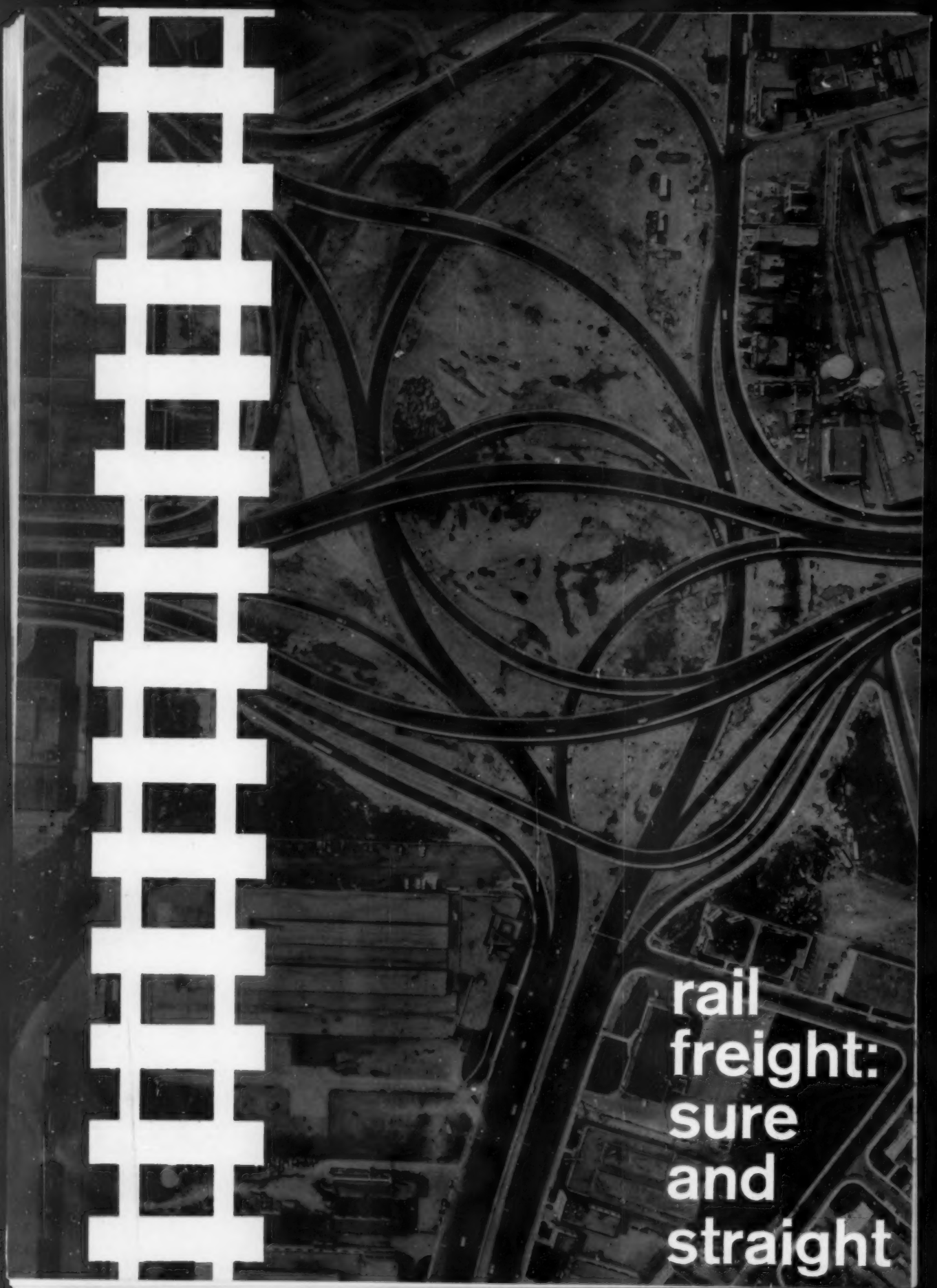
Weeks, L. H. 22 yrs
sectionman
Summerside, P.E.I.

White, T. 45 yrs
carman
Montreal, Que.

Wiedemann, K. 26 yrs
sectionman
Melville, Sask.

Williams, E. V. 24 yrs
sectionman
Stratford, Ont.

Williamson, A. E. 28 yrs
sectionman
Nouvelle, Que.


rail
freight:
sure
and
straight